

Executive Summary

Overview

This is the first issuance of the Navy's Total Asset Visibility (NAVTAV) Strategic Plan. The principles and processes described herein are directly linked to the priorities outlined in our Navy Logistics Strategic Plan, the DoD Logistics Strategic Plan, and the strategies delineated in the Defense (Joint) Total Asset Visibility Implementation Plan. The NAVTAV plan addresses the Navy's strategies and initiatives for achieving wholesale, retail, and in-use asset visibility as well as repairable pipeline visibility, in-transit visibility and commercial asset visibility.

TAV is the capability to provide timely and accurate information on the location, movement, status and identity of units, personnel, equipment and supplies. It also includes the capability to act upon that information to improve the overall performance of the DoD's logistics practices. Another view of TAV is the ability to make Navy assets both visible and accessible that were previously not visible nor accessible through an automated process. Thus, TAV requires the availability of logistics information in real time so that a myriad of customers can make intelligent decisions to satisfy requirements and offset procurements or repairs with the goal of lowering the overall cost of providing quality logistics support as well as improving customer confidence in the Supply System.

Although TAV encompasses all assets regardless of type, the NAVTAV Strategic Plan will focus primarily on secondary items, to include ammunition. It also consolidates visibility requirements into three key coverage areas that are in consonance with the Joint Total Asset Visibility (JTAV) program:

- **In-Storage.** Visibility of assets at the wholesale distribution depots, at retail or consumer sites and at disposal activities. The Navy has also chosen to

expand this definition to include visibility of In-Use assets held by afloat units.

- **In-Process.** Visibility of assets on order from commercial vendors, but not yet shipped, and within the intermediate and depot level maintenance process at organic or commercial activities.
- **In-Transit.** Visibility of assets being shipped from their point of origin to their destination.

The goals of NAVTAV are to:

- provide quality products and services to the warfighter while significantly reducing infrastructure (e.g. inventories and inventory support costs);
- reduce logistics response time and increase readiness, thus increasing customer confidence in the Supply System; and
- offset procurement or repair requirements with the visibility and redistribution of assets previously unknown to and unseen by logistics managers.

Navy and DoD Logistics Strategic Plans Support

The DoD Logistics Strategic Plan defines the mission of the logistics systems as the ability to "provide responsive support to ensure readiness and sustainability for the Total Force in both peace and war." In supporting this mission, NAVTAV envisions delivering quality tools that provide quality asset information and access capabilities. This will be accomplished by investing in TAV-enabling technologies, training those involved, reengineering the logistics process, and employing the best of government and commercial business practices as a result of our changing technological environment.

Additionally, NAVTAV plays a key role in supporting the DCNO(L)/USMC DCS (I&L)'s Naval Logistics Strategic Plan and the Navy Supply System (NAVSUP) Strategic Plan. These plans incorporate asset visibility as a key enabler to improving logistics performance and customer service.

Joint Total Asset Visibility Requirements Support

As a result of the goals and objectives delineated in the DoD Logistics Strategic Plan, a Joint Total Asset Visibility Office was established to provide management oversight in the implementation of DoD TAV and to coordinate all DoD TAV initiatives. The JTAV Office developed the JTAV Implementation Plan in November 1995 that provides a concept of operations for TAV, with target requirements to be satisfied in the areas of In-Storage, In-Process, In-Transit, In-Theatre and Requisition Tracking; and milestones for their accomplishment. NAVTAV is designed around these same key areas, and fully support all customer requirements delineated in the JTAV Implementation Plan.

Navy Total Asset Visibility Organizational Structure

The Director, Supply Programs and Policy Division (N41) in the Office of the Deputy Chief of Naval Operations (Logistics) established the Navy Total Asset Visibility (NAVTAV) Coordination Office in June 1997. The NAVTAV Coordination Office serves as the proponent for Navy TAV, coordinates Navy's TAV requirements, and ensures that Navy's TAV policies, processes, initiatives and programs fully support the JTAV Implementation Plan.

In addition to the OPNAV NAVTAV Coordination Office, the Naval Supply Systems command established the NAVSUP NAVTAV Office in October 1997 to provide strategic direction, SYSCOM interface and system architecture support.

Navy Total Asset Visibility Initiatives

The Navy has been, and continues to be, a Department leader in the development and implementation of initiatives to facilitate TAV. This document provides an in-depth discussion of NAVTAV initiatives that are categorized as asset (target) databases, TAV specific systems (tools), and TAV enablers that support the key coverage areas discussed previously, and are either implemented or planned for implementation.

<i>Category</i>	<i>System / Initiative</i>	<i>TAV Area Supported</i>
<i>Asset Databases</i>	<i>UICP</i>	<i>In-Storage, In-Process</i>
	<i>CAIMS</i>	<i>In-Storage, In-Process</i>

	<i>UADPS</i>	<i>In-Storage, In-Process</i>
	<i>RAM</i>	<i>In-Storage</i>
	<i>ISLMIS</i>	<i>In-Storage</i>
	<i>CRAMSI</i>	<i>In-Storage</i>
	<i>SHPYD MM/MAT</i>	<i>In-Storage</i>
	<i>HSMS/HICS</i>	<i>In-Storage</i>
	<i>ROMIS</i>	<i>In-Storage</i>
	<i>IRIS</i>	<i>In-Storage</i>
<i>TAV Systems / Initiatives</i>	<i>FIMARS/FITS</i>	<i>In-Storage, In-Theater</i>
	<i>TIR Wheel Expansion</i>	<i>In-Storage</i>
	<i>VMSIR</i>	<i>In-Storage</i>
	<i>VMSIR-SAMMS</i>	<i>In-Storage</i>
	<i>FACTS FLEET</i>	<i>In-Transit</i>
	<i>RAM</i>	<i>In-Storage</i>
	<i>CRAMSI</i>	<i>In-Storage</i>
	<i>ATAC+</i>	<i>In-Transit</i>
	<i>CAV PC</i>	<i>In-Process</i>
	<i>ISV-R</i>	<i>In-Storage</i>
	<i>PVIS</i>	<i>In-Storage</i>
	<i>RDO/RFI</i>	<i>In-Transit</i>
	<i>ROMISVIS</i>	<i>In-Storage</i>
	<i>IRISVIS</i>	<i>In-Storage</i>
	<i>VMSIR AT TRF</i>	<i>In-Storage</i>
	<i>RHMMSVIS</i>	<i>In-Storage</i>
	<i>IIP</i>	<i>In-Storage, In-Process</i>
	<i>JCALs Prototype SOM</i>	<i>In-Storage</i>
<i>TAV Enablers</i>	<i>SALTS</i>	<i>In-Storage, In-Process, Reqn Tracking</i>
	<i>PC34/SNAPshot</i>	<i>In-Storage, In-Process, Reqn Tracking</i>
	<i>CIC FISC</i>	<i>In-Storage, Reqn Tracking</i>
	<i>CPEN</i>	<i>In-Storage, Reqn Tracking</i>
	<i>MFCS</i>	<i>In-Storage</i>
	<i>ANSRS</i>	<i>In-Storage</i>

Navy's TAV System Architecture

The Navy's TAV System Architecture achieves the desired end state of the Navy Supply System, i.e., "One Touch Supply." This "To Be" capability will give the warfighter and logistician access to real time decision making data. It assumes a robust communication network and a data access infrastructure that is compliant, where required, with the Defense Information Infrastructure (DII) Common Operating Environment (COE), and is consistent with Joint Vision 2010's strategy for a Global Combat Support System (GCSS).

The architecture centers around the following principles:

- Single log-in capability
- Capable data search engine (global data manager)
- DUSD(L) approved security solution
- WEB-enabled access
- Open architecture design
- DII COE compliance

Navy's TAV Training Strategy

Formal training must be incorporated into Navy curricula to support new developments and capabilities in TAV and ITV. This Plan maps a training strategy for fiscal year 1998. Improvements in all echelons of the logistic infrastructure will be realized if these new advances are readily understood by the logistics work force and key logistics managers.

Policy Review

Each Navy activity should perform a review of all policy and procedures, instructions and any other documentation pertaining to execution of its assigned mission with regard to identification of any business process changes required to support the Navy Total Asset Visibility concept.

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I. Introduction

- A. **Purpose.** The *Navy's Total Asset Visibility (TAV) Strategic Plan* provides the Navy's approach to achieving TAV. Visibility and business processing re-engineering are the core of this *Plan*. Also, from a DoD perspective, achieving TAV for 1) wholesale/retail asset visibility and redistribution, 2) reparable pipeline visibility, and 3) commercial asset visibility by October 1998 is the second highest priority in the *1996/1997 DoD Logistics Strategic Plan*. The third highest priority in the DoD *Plan* is achieving In-Transit Visibility (ITV). The Navy's TAV Strategic Plan links DoD strategies, as well as Joint TAV Office (JTAV) implementation strategies, to Navy initiatives outlined herein. Additionally, the *Plan* provides a summary of TAV initiatives that enable Navy to expand its asset visibility capabilities both internally and within DoD.
- B. **TAV Defined.** The *Defense (Joint) Total Asset Visibility Implementation Plan* defines TAV as follows:

"TAV is the capability to provide timely and accurate information on the location, movement, status and identity of units, personnel, equipment, and supplies. It also includes the capability to act upon that information to improve the overall performance of the DoDis logistics practices."

In order to coordinate the overall TAV efforts, DoD established the Joint TAV Office which developed and published the *Joint Total Asset Visibility Implementation Plan*. This *Plan* delineates the actions required to achieve TAV within the Department. Concurrently, the U. S. Transportation Command developed and published the *Defense In-Transit Visibility Integration Plan* which delineates the actions required to achieve total DoD ITV capability.

While TAV means visibility of assets to many people, -and it is just that,- without acting upon such vital information to satisfy customer requirements, or to offset procurements or repairs will not achieve, in and of itself, the overall objectives of improving logistics support and reducing procurement and repair costs. To really gain the benefits of TAV, Navy logisticians will essentially have to change the way they do business in the future to fully exploit this capability.

The *Joint Total Asset Visibility Implementation Plan* identifies three specific areas within TAV which are described below:

- **In-Storage.** Visibility of assets at the wholesale distribution depots, at retail or consumer sites, and at disposal activities within the Defense Reutilization Marketing Service (DRMS). In addition, Navy has chosen to expand the JTAV definition to include in-use assets held by end-users afloat in order to gain visibility of these inventories.
- **In-Process.** Visibility of assets on order from commercial vendors, but not yet shipped, and within the intermediate and depot level repair process of organic and commercial activities.
- **In-Transit.** Visibility of assets, including personnel, medical patients, equipment, major end items (MEI), and supplies being shipped from origin (i.e., vendors, storage activities or maintenance facilities) to destination (i.e., using units, storage activities or maintenance facilities).

In addition to the visibility in the areas described above, the *Plan* also calls for a Requisition Tracking System that will permit consumers, logistics managers and operational commanders to know the exact status of every requisition submitted to the

system. The achievement of asset visibility in the three areas described above, as well as the tracking of requisitions, will be through three national-level information systems. These are the Logistics Information Processing System (LIPS), Inventory Control Point Automated Information System (ICP AIS), and Global Transportation Network (GTN). When these three systems are fully implemented, operational managers, logistics managers, major commands, and users will have world-wide visibility of all assets in the DoD logistics system.

Finally, the *Joint Total Asset Visibility Implementation Plan* identifies the requirement for **In-Theater** asset visibility. The JTAV Office will provide the capability that gives theater commanders and deployed forces visibility of all personnel and material assets in a particular theater of operations.

- C. **TAV Benefits.** In the *1996/1997 DoD Logistics Strategic Plan*, the vision for the logistics system is one that provides quality products and services to the iwarfighter while significantly reducing the logistics infrastructure. Implementation of TAV will be instrumental in achieving this vision.

Inventory managers will have visibility of assets world-wide, and at all levels, which will permit them to potentially satisfy customer requirements from assets previously unknown to them, thereby reducing logistics response time and increasing readiness. Additionally, inventory managers will have the potential to apply these heretofore unknown assets as offsets to either procurement or repair requirements thereby avoiding such inventory investments and reducing inventories.

TAV will permit customers to have status information from the time a requisition is submitted until the material is delivered. This real-time information status should increase customer confidence in the logistics system responsiveness. As a result, duplicative requisitioning of material that has been prevalent in the past should be eliminated, thereby reducing inventory investment and transportation lift requirements.

Operational commanders will also have visibility of assets world-wide which will permit them to more effectively carry out their operational planning and assessment responsibilities. This enhanced visibility will also permit them to identify critical shortages and enable them to expedite procurement or repair. Equally important, operational

commanders will have specific visibility of assets within a particular theater of operations, thereby providing them the opportunity to redistribute assets within the theater to satisfy emergent requirements. In addition, operational commanders will be able to track inbound shipments through the in-transit visibility capability which will permit more effective workload planning.

- D. Roadmap.** The remainder of the *Navy's TAV Strategic Plan* contains six additional sections. Section II, *The Logistics Vision*, discusses the *DoD Strategic Plan* in the context of DoD's vision, principles, goals and objectives for the logistics system of the future. The term *system* used here refers to a federation of interoperable systems consistent with the Global Combat Support System (GCSS) strategy as promulgated by the Joint Staff, J4. Section II also discusses *Navy's Supporting Strategic Plan* in terms of its vision, values, and strategic initiatives, goals, and strategies. This brief discussion of both DoD's and Navy's strategic planning is relevant in order to gain the proper perspective of the importance of TAV and its contribution to the logistics system of the future.

Section III, *Requirements for Joint TAV* discusses the specific requirements of TAV presented in the *Joint TAV Implementation Plan* in the areas of In-Storage, In-Process, In-Transit, In-Theater, and Requisition Tracking. These requirements will set the baseline with which to measure the Navy's initiatives in TAV and to identify actions that still need to be initiated.

Section IV, *Navy TAV Organization Structure*, briefly describes the Navy TAV offices located at the Office of the Chief of Naval Operations for Logistics and the Naval Supply Systems.

Section V, *Summary of Navy TAV Initiatives*, describes Navy's current and planned TAV initiatives. Each initiative links back to the *Joint TAV Implementation Plan* requirements and highlights the specific benefits to be gained.

Section VI, *NAVTAV System Architecture*, provides an overview of the Navy's approach to accessing asset data for visibility and transaction purposes. It focuses on a single login capability that links the user to a global data management systems to access target data bases or applications.

Finally, Section VII, *NAVTAV Training Strategy*, maps the Navy's approach to improving our training curricula in support of TAV.

II. The Logistics Vision

A. DoD Logistics Strategic Plan. In 1993, the Department of Defense conducted a “Bottom Up Review” of the entire operations of the Department. One of the conclusions of this review was that the Department’s logistics performance had to be improved, while at the same time reducing the logistics infrastructure. From this conclusion, DoD developed the Logistics Strategic Plan which was initially published in 1994 and updated annually thereafter. The current Logistics Strategic Plan was distributed in May 1996 and covers the years 1996 and 1997.

1. Logistics System Vision. The Logistics Strategic Plan defines the *mission* of the logistics system as the ability to “*provide responsive support to ensure readiness and sustainability for the Total Force in both peace and war.*” In support of this *mission*, the Strategic Plan emphasizes a vision for the DoD Logistics System which would deliver quality products to the “warfighter” while reducing logistics infrastructure, as shown in **Figure II. A-1.**

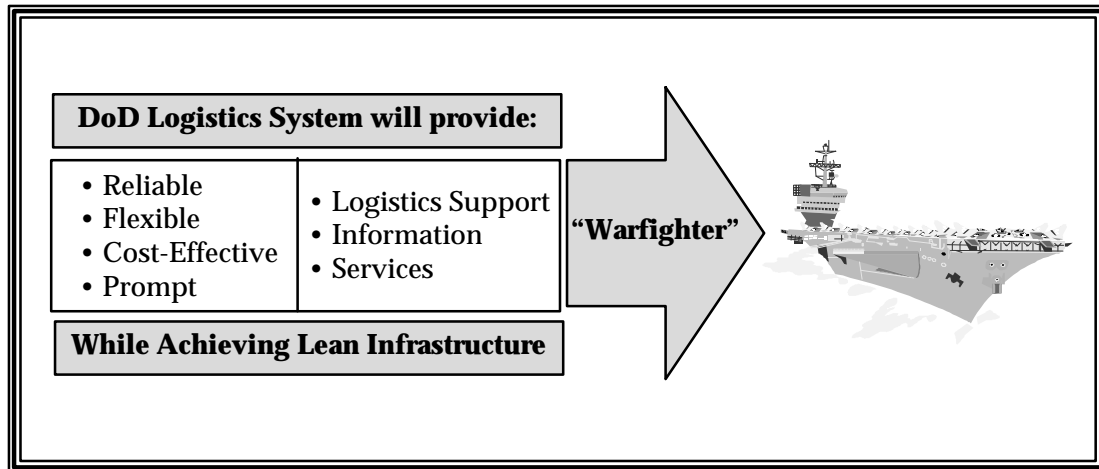


Figure II. A-1 DoD's Vision for the Logistics System

The means for achieving this vision are through investing in technology, training our people, reengineering our processes, and employing the best of government and commercial business practices. The achievement of DoD's vision for the Logistics System of the future is also based upon certain underlying principles.

2. Principles. The principles identified in the Strategic Plan that support the vision for the Logistics System are briefly identified below:

- weapon systems availability and unit readiness must be maintained or improved, while reducing total cost.
- cost and "footprint" of logistics support must be reduced substantially without reducing readiness.
- military commanders require near real-time information on materiel and logistics support capability.
- performance improvement must be measured in the context of customer support.
- performance measurement techniques and methods must be improved.

- operations and support costs must be reduced through investments and process reengineering.
- national industrial capability must be treated as part of DoD logistics capability.
- peacetime organizations must be able to transition transparently to wartime support.

The DoD Logistics Strategic Plan identified three goals and eight objectives in consonance with the mission, vision, and underlying principles of the DoD Logistics System which are discussed in the next section.

3. Goals and Objectives. The three goals identified in the Logistics Strategic Plan were to *Reduce Logistics Cycle Times*, *Develop Seamless Logistics System*, and *Streamline Logistics Infrastructure*, as shown in **Figure II. A-2**, which also details the supporting objectives for each of those goals.

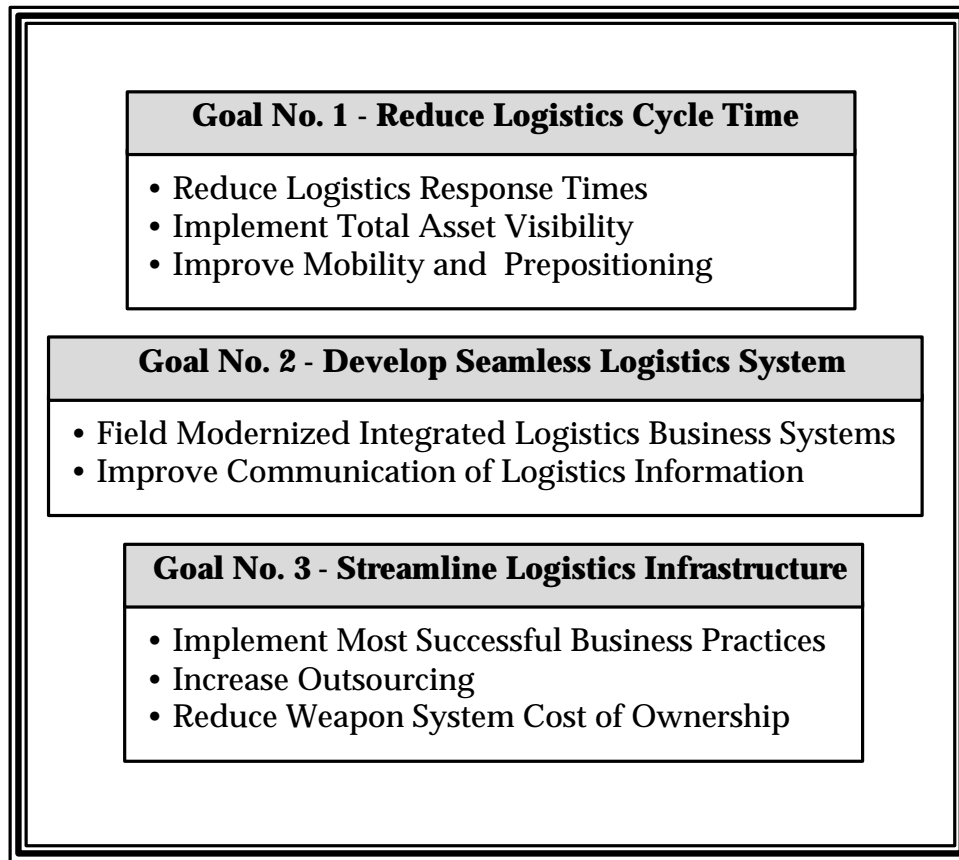


Figure II. A-2 DoD's Logistics Goals and Objectives

The essence of each of the eight supporting objectives, shown in **Figure II. A-2**, is briefly described below:

Reduce Logistics Response (LRT) Times - to provide quality support to meet the needs of customers, within a smaller logistics infrastructure, which results in reduced inventories and increased customer confidence in the supply system.

Implement Total Asset Visibility (TAV) - to provide an essential management tool to customers, inventory managers, weapons system managers, and operational commanders to acquire, move or redirect materiel and personnel, to redistribute materiel rather than buy or repair, and to optimize stock positioning.

Improve Mobility and Propositioning - to establish a capability to move specified numbers of personnel and cargo tonnage under a range of scenarios within required time frames.

Field Modernized Integrated Logistics Business Systems - to modernize and integrate the DoD logistics business systems, supported by lifecycle cost/performance trade-off analyses, that include Materiel Management, Distribution, Transportation, Maintenance, Personnel, and Medical Logistics Management Information Systems.

Improve Communications of Logistics Information - to implement Continuous Acquisition and Life Cycle Support (CALS) core strategy, merge approaches to configuration and data management into a unified approach, and expand the use of Electronic Data Interchange (EDI) and Electronic Commerce (EC) for business transactions.

Implement Most Successful Business Practices - to reduce inventory levels of secondary items, expand contracting methods so as to aggregate purchases from single sources, fully implement Phase II of Primary Inventory Control Activity/Secondary Inventory Control Activity (PICA/SICA), promote the use of environmentally-safe materiel in the design of new equipment and processes, implement acquisition reform initiatives, continue implementation of a vertical stock fund, and improve methods for costing depot maintenance products and services.

Increase Outsourcing - to draw upon the capabilities of the commercial sector to reengineer DoD-applicable logistics business processes which result in more efficient and effective customer support.

Reduce Weapon System Cost of Ownership - to accomplish effective life-cycle cost/performance trade-off analyses, implement programs which finance investments in weapon system life-cycle cost

reductions through reliability, maintainability and supportability enhancements, maximize the use of Automatic Test System (ATS) families or commercial item testers in all acquisitions, and continue implementation of readiness-based sparing to attain readiness goals for the least cost.

In summary, the DoD Logistics Strategic Plan provides the vision, goals, objectives, and strategies that will efficiently and effectively support the “warfighter” in the new millennium. As a cross-reference summary, Navy TAV will directly support the following DoD Logistics Strategic Plan objectives as noted above:

- Reduce LRT
- Implement TAV
- Improve Mobility and Prepositioning
- Field Modernized Integrated Logistics Business Systems
- Implement Most Successful Business Practices
- Improve Communications of Logistics Information
- Reduce Weapons Systems Cost of Ownership

B. Navy’s Supporting Strategic Plans. The Navy has two strategic plans that incorporate asset visibility as a key enabler to improving logistics performance and customer service. They are the Naval Supply Systems Command (NAVSUP) Navy Supply System Strategic Plan, and the Navy Logistics Strategic Plan developed under a combined effort by the Deputy Chief of Naval Operations for Logistics (DCNO(L)) and the United States Marine Corps Deputy Chief of Staff for Installations and Logistics (USMC DCS (I&L)).

In 1995, Navy logistics planners at NAVSUP conducted an extensive strategic planning effort on the future of the Navy Supply System. This planning effort included comprehensive interviews with the customers and stakeholders of the Navy Supply System, as well as consideration of several possible planning scenarios over the next five years. As a result of this extensive review, a Strategic Plan for the United States Navy Supply System was developed and published in January 1996.

In 1996, the DCNO(L) and USMC DCS(I&L) developed the Naval Logistics Strategic Plan, “*Expeditionary Logistics*”. The *Plan* defines the Navy and Marine Corps strategic direction and provides a common reference point for Service transformation to twenty-first century logistics. A key enabler to this transformation into a leaner, more efficient, and less costly support system is the exploitation of asset visibility capabilities, both current and planned. The *Plan* emphasizes the need to capitalize on Service and Joint TAV capabilities as well as partner with other DoD components to reap the full spectrum of TAV benefits.

1. Navy Supply System Strategic Plan. The Navy Supply System Strategic Plan defines the *mission* of the Supply System as the ability “*to provide our Naval Forces quality supplies and services*”. While this *mission* definition has remained the same for over 200 years, the means of accomplishing the *mission* have obviously changed dramatically and will continue to change in the years ahead. These future changes are based upon the following assumptions:

- Navy will continue to downsize its force structure and personnel;
- resource constraints will continue, thereby increasing pressure to reduce Supply System infrastructure; and
- demands on Naval Forces will increase.

Given those assumptions, it became quite clear to the Navy’s logistics planners that the Navy Supply System’s “processes” must become more efficient and effective in order to continue to provide complete supply support to maintain and sustain the Navy’s warfighting capabilities. Based upon this conclusion, a vision of the desired end state of the Navy Supply System at the culmination of the planning horizon was developed. This end state, commonly referred to as “***One-Touch Supply***”, is shown graphically in **Figure II. B-1**.

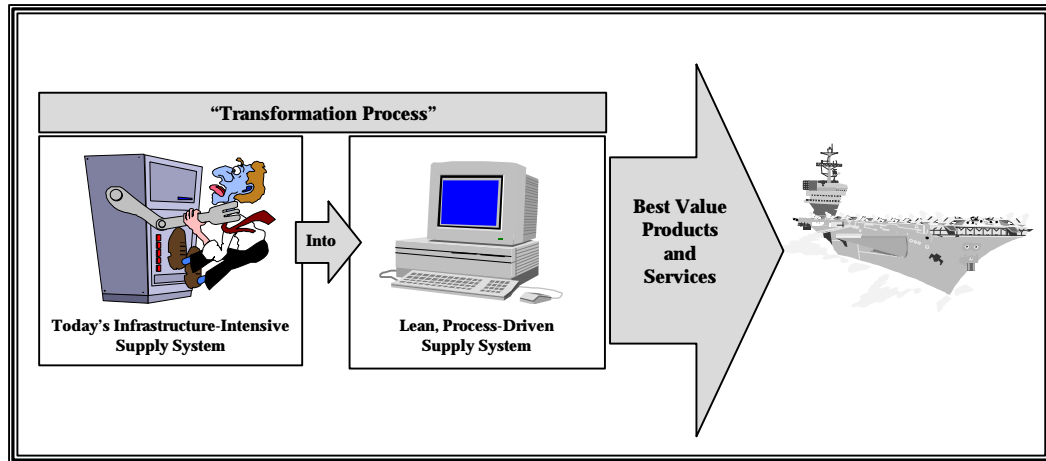


Figure II. B-1 Navy's "One-Touch Supply" System

a. **Strategic Initiatives and Strategies.** NAVSUP's five strategic initiatives are: Attacking the Infrastructure; Driving Down Weapon Systems Support Costs; Afloat Supply - Shaping the Future; Customer Focused Contracting; and A Workforce for the 21st Century. Of the five initiatives, Navy TAV will have a direct impact on the following

- **Attacking the Infrastructure.** The goal of this initiative is to drive down the cost of the supply infrastructure and to transform the system into a responsive global network. The strategies planned to achieve this goal are:
 - completing efforts currently underway to establish "regional supply" through the establishment of strategic partnerships;
 - taking "regional supply" national, thereby creating a single, process-driven supply system; and
 - linking the process-driven system to best value providers of products and services accessible through a single customer action.

Achievement of these strategies will permit Navy to consolidate similar processes, eliminate unnecessary activities, and outsource services where it makes good business sense, thereby making the

overall “process” more efficient and contributing to a reduced infrastructure-intensive Supply System.

- **Driving Down Weapon Systems Support Costs.** The goal of this initiative is to partner with the Hardware Systems Commands (HSCs), Defense Logistics Agency (DLA), and the other Services to reduce weapon systems life cycle costs and supporting inventory investment, while maintaining readiness. The strategy directly related to Navy TAV is:

- reengineering inventory investment, retention and positioning strategies to reduce life cycle costs, while maintaining readiness.

Implementation of this strategy will result in reduced system support costs by increasing the availability, reliability, and maintainability of spare parts. Moreover, reduced logistics response cycle times will be achieved through inventory solutions that capitalize on innovative support alternatives, such as contractor logistics support and a cost-effective national-level inventory which is visible and redistributable through state-of-the-art total asset visibility systems and capabilities.

- **Afloat Supply - Shaping the Future.** The goal of this initiative is to partner with the Fleet to reduce the cost of afloat supply and supporting infrastructure while maintaining or improving the quality of support. The strategies directly related to Navy TAV are:

- reducing workload afloat by standardizing tools and practices, inserting technology, and shifting workload ashore;
- implementing the best value source of products and services; and
- restructuring ratings and supporting training to take advantage of the two previous strategies.

Accomplishment of these strategies will result in streamlining services and optimizing the software systems provided to the Fleet for the management and operation of afloat supply departments thereby reducing afloat supply infrastructure.

- **A Workforce for the 21st Century.** The goal of this initiative is to build a skilled and flexible workforce around new processes, systems, and training mechanisms. The strategy directly related to the education and training of personnel in Navy TAV is:
 - renewing the workforce through teaming and education mechanisms that support the Navy Supply System's core competencies of "best value analysis", "acquisition logistics", and "operational logistics".

In summary, of the five Strategic Initiatives described in the NAVSUP Strategic Plan for the United States Navy Supply System, the aforementioned four are clearly supportive of the implementation of the Navy's TAV Strategic Plan.

2. **Naval Logistics Strategic Plan: "Expeditionary Logistics".** The Naval Logistics Strategic Plan defines the *mission* of Naval Logistics as "*timely support, where ever it is needed, of our operating forces with distinction at the strategic, operational, and tactical levels of logistics*". *Expeditionary Logistics* is portable, precise and committed to excellence. It is built around four Logistics Cornerstones, one of which is *Information*, as shown in **Figure II. B-2.**

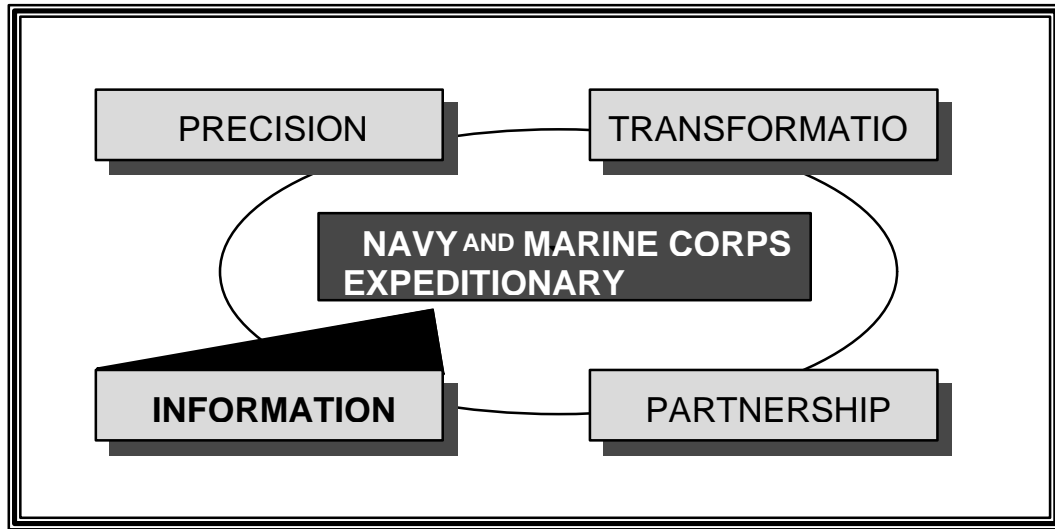


Figure II. B-2 Expeditionary Logistics

Navy TAV will directly impact and support the following *Information* objectives:

- **Reengineer to Reduce Costs and Cycle Times.** The goal of this objective as it relates to asset visibility includes the elimination or reengineering of antiquated supply processes to improve the flow of information and reduce procurement lead times, average customer wait times, and material transit times. A key enabler to this includes the expanded use of Commercial Off The Shelf (COTS) software and technology.
- **Exploit Information Technology for Seamless Logistics.** The goal of this objective as it relates to asset visibility includes capitalizing on individual Service and Joint Total Asset Visibility initiatives and capabilities by reducing inventories, implementing “just-in-time” maintenance, and scheduling operational events with greater precision.

By harnessing the power of leading edge technology and linking our inventories through innovative initiatives, customers can achieve improved capabilities, such as total asset visibility, that will facilitate the Navy’s transformation into a leaner, more efficient, and less costly support system.

III. Requirements for Joint TAV

- A. Joint TAV Implementation Plan.** As a result of the goals and objectives delineated in the DoD Logistics Strategic Plan, a Joint Total Asset Visibility (JTAV) Office was established to provide management oversight in the implementation of TAV within DoD and to coordinate all TAV initiatives. The JTAV Office developed the *Joint Total Asset Visibility Implementation Plan* which was published in November 1995. The *Plan* provides: a concept of operations for TAV; specific requirements to be achieved in the areas of In-Storage, In-Process, In-Transit, In-Theater, and Requisition Tracking; and milestones for accomplishment. This *Section* attempts to summarize the more salient features in those three areas as identified in the *Plan*.
- B. TAV Concept of Operations.** The concept of operations envisions achieving world-wide visibility of all DoD assets. This visibility includes:
- accurate and timely reporting and tracking of customer requisitions;
 - secondary items in-storage, in-process, or awaiting disposal;
 - unit equipment; non-unit equipment; ammunition; packaged and bulk petroleum, oil, and lubricant (POL) products; personal property; personnel in-transit; and movements of medical patients; and
 - in-theater assets during contingencies and wartime operations.

TAV will be achieved primarily through the use of three national-level Automated Information Systems (AIS) known as Inventory Control Point

AIS (ICP AIS), Logistics Information Processing System (LIPS), and Global Transportation Network (GTN), as well as other integrated systems at the Service and joint levels.

The key features of the TAV Concept of Operations are the supporting data base systems, accessibility and updating the data bases, and the ability to act upon the information gained by TAV.

Each of the three primary data base systems, ICP AIS, LIPS, and GTN, will be supported by one or more data bases, as well as supporting technology such as Automatic Identification Technology (AIT). In the short run, JTAV servers will have data feeds from these data base systems to permit users a single point of entry to that particular system for obtaining information. As global data management capabilities evolve and mature, access to requisite data will be directly from the data source. For example, GTN data feeds to JTAV servers via a replicated process will eventually be replaced by direct access to GTN source data.

Finally, TAV of DoD-wide assets, in and of itself, will not provide the Department any benefits unless action is taken on this newly acquired information. Only when a wholesale inventory manager, for example, takes action to redistribute material from a retail activity to satisfy an operator's high priority requisition (as opposed to backordering or procurement) will benefits accrue, e.g., reduced logistics response time and/or an offset to procurement/repair.

- C. **Requirements for the Joint TAV Areas.** The specific requirements of TAV in the areas of In-Storage, In-Process, In-Transit, In-Theater, and Requisition Tracking are discussed below. In addition, any requirements identified in the *Joint Total Asset Visibility Implementation Plan* which are excluded based upon the Navy's perspectives are highlighted.

1. **In-Storage.** Visibility of assets In-Storage includes both wholesale and retail level assets, as well as inventory assets stocked by the end user. Wholesale assets are those assets owned and managed by national Inventory Control Point (ICP) managers, including those assets located

at disposal activities in the DRMS. Retail assets are those assets below the wholesale inventory level, but above the in-use level. In-use assets are those assets maintained by the end user in inventory/stock that have been expended from the inventory manager's records.

Visibility of wholesale assets and requirements includes the following data elements for each line item:

- Stock Balances by Purpose Code
- Stock Balances by Condition Code
- Reorder Point Requirement
- Requisitioning Objective Requirement
- Retention Limit Requirement

Figure III. C-1 provides the rationale for visibility requirements of wholesale assets and requirements for the various organizations within DoD.

No.	JTAV In-Storage Wholesale (ISW)
ISW-1	IMMs require visibility of all wholesale assets for satisfying customer requisitions and making procurement/repair/disposal decisions.
ISW-2	IMMs serving as PICAs for repairable items require visibility of SICA assets and requirements.
ISW-3	IMMs serving as SICAs require visibility of PICA's assets and requirements to assess support capability.
ISW-4	IMMs require visibility of all DRMS assets to satisfy replenishment requirements.
ISW-5	Retail inventory managers require visibility of wholesale assets for planning purposes and responding to customer inquiries.
ISW-6	End users and intermediate-level maintenance activities require visibility of wholesale assets to execute materiel and operational planning responsibilities.
ISW-7	Depot-level maintenance managers require visibility of serviceable wholesale assets for maintenance planning and expediting purposes.
ISW-8	Depot-level maintenance managers require visibility of unserviceable wholesale assets for maintenance planning and expediting purposes.
ISW-9	Logisticians on various staffs--CINCs, JTF commanders, Services, major commands, and weapon system managers--require visibility of wholesale assets for resolving materiel problems and assessing the logistics consequences of operational plans.

Figure III. C-1 Rationale for Wholesale Visibility

Visibility of retail assets and requirements include the following data elements for each line item:

- ï Stock Balances by Condition Code
 - ï On Order Balances (Excluding Local Purchases/Repair)
 - ï Reorder Point Requirement
 - ï Requisitioning Objective Requirement
 - ï Retention Limit Requirement

Figure III. C-2 provides the rationale for visibility requirements of retail assets and requirements for the various organizations within DoD.

No.	JTAV In-Storage Retail (ISR) Requirements
ISR-1	IMMs require visibility of retail assets/requirements to satisfy customer orders through retail lateral redistribution, forecast requirements, and generate or defer buys and repairs.
ISR-2	Intermediate-and depot-maintenance activities require visibility of assets at supporting retail activities to schedule repair workloads and to obtain status on repair actions awaiting parts.
ISR-3	Headquarters/major commands require visibility of retail assets/requirements for assessing mission capabilities, contingency operations, and planned requirements.
ISR-4	Weapon system managers require visibility of retail assets/requirements to assess logistics support capabilities and track item usage.

Figure III. C-2 Rationale for Retail Visibility

Visibility of in-use assets and requirements includes the following data element for each line item:

- Stock Balance by Condition Code
- Allowance Level
- Outstanding Requisition Quantity

Figure III. C-3, on the next page, provides the rationale for visibility requirements of in-use assets and requirements for the various organizations within DoD.

No.	JTAV In-Storage In-Use (ISI) Requirements
ISI-1	IMMs require visibility of in-use assets/requirements to satisfy customer orders through in-use redistributions, to include in-use requirements in forecasting wholesale requirements, and to offset in-use assets against procurement and repairs.
ISI-2	Headquarters/major commands require visibility of in-use assets/requirements for assessing mission capabilities, contingency operations, and planned requirements.
ISI-3	CINCs and JTF commanders require visibility of in-use assets with the deployed battle groups for assessing mission capabilities and allocating critical assets within and among deployed battle groups.
ISI-4	Weapon system managers require visibility of in-use assets/requirements to assess logistics support capabilities and track item usage.

Figure III. C-3 Rationale for In-Use Visibility

The envisioned operating characteristics for achieving visibility and business process re-engineering of In-Storage assets and requirements can be categorized into four areas: Data Base Systems; Visibility Reporting; Query Capability; and Redistribution Actions. Each area is discussed below in the context of the Navy Supply System.

Data Base Systems. Wholesale and retail data bases for Secondary Items will be maintained within the Uniform Inventory Control Point (UICP) system at the Naval Inventory Control Point (NAVICP). Wholesale and retail data bases for ammunition will be maintained within the Conventional Ammunition Information Management System (CAIMS) at the Naval Ordnance Command (NOC). As indicated previously, the data bases will contain both asset and requirements information.

Visibility Reporting. The wholesale data base will be populated with line items that are under daily Transaction Item Reporting (TIR) procedures for all Purpose Codes except Purpose Code “W” (fixed allowance stock) and Purpose Code “L” (SHORCAL consumer level retail pack-up kits). The retail data base will be populated with line items that are not Tir’d to the NAVICP or NOC and those line items that are Tir’d, but are in Purpose Code “W” and “L”. Until TIR reporting is expanded to all Navy activities holding retail inventories, asset and requirement data will have to be provided by means of periodic file transfers. The retail data base would include asset and requirement information from all retail activities, including repair depots funded by the Navy Working Capital Fund (NWCF). Navy activities holding Navy-owned Defense Logistics Agency (DLA) inventories would be required to provide asset and requirement information to the respective DLA inventory managers. The in-use data base will be populated with items visible to the ICP through the Afloat Asset Visibility (AAV) program and the Material Financial Control System (MFCS) data feeds to shore based system located at the ICP.

Query Capability. Headquarters logistics organizations, e. g., Hardware Systems Commands, retail activities, unit commands, and

end users that submit requisitions directly to NAVICP or NOC would have the capability to submit inquiries concerning the asset position of any line item. Additionally, retail activities could report asset information to inventory managers in the other Military Services when requested.

Redistribution Actions. Redistributions will occur at three different levels: intra-service redistributions within the Navy; inter-service redistributions among the Military Services and DLA via the Integrated Material Manager (IMM); and in-theater redistributions. For intra-service redistributions, the Navy will have the option to initiate all retail-to-retail redistributions before requisitioning material from the NAVICP, NOC or DLA. All inter-service redistributions, including access to DRMS assets, will be centrally managed by either NAVICP or NOC. These national inventory managers would have the ability to redistribute retail assets in excess of a retail activity's requisitioning objective in peacetime to satisfy another Service's requisition, except when a ship is in its Preparation for Overseas Movement (POM) cycle or is deployed. Retail assets above the requisitioning objective aboard ships in a status other than POM or deployed will be available for inter-service redistribution, but only after all other alternative sources of material have been pursued. When wartime or contingency conditions exist, retail assets below the requisitioning objective will be available for inter-service redistribution to satisfy Issue Priority Group I or II requisitions with an Item Mission Essentially Code (IMEC) or Joint Chiefs of Staff project code. Finally, in-theater redistributions, both intra- and inter-service, will be managed by the in-theater (supported) CINC or JTF commander.

The *Joint TAV Implementation Plan* identified three specific action items for In-Storage TAV, as shown below:

- review and improve business rules for redistributing retail assets;

- develop and publish policy clarifying when national inventory managers, i.e., NAVICP, should assume control of excess retail assets in place; and
- develop business rules governing when and how activities other than the national inventory managers would have access to DRMS assets.

2. In-Process. Visibility of assets In-Process includes both items due-in from procurement and due-in from repair. Assets due-in from procurement include all assets procured by IMMs, i.e., wholesale system due-ins, and assets DoD components provide to vendors to produce other assets, i.e., government-furnished material (GFM). Assets due-in from repair include all unserviceable reparables at a depot-level maintenance organization, either organic or commercial, and at intermediate-level repair organizations.

Visibility of assets due-in from procurement begins when an inventory manager issues a request for procurement of an asset and is completed when the asset is delivered, inspected and a receipt is processed. Visibility of assets due-in from repair begins when an unserviceable reparable is turned into the supply system and is completed when the serviceable asset is shipped to either the customer or storage facility.

Figure II. C-4 provides the rationale for visibility requirements of in-procurement assets for the various organizations within DoD.

No.	JTAV In-Process Procurement (IPP) Requirements
IPP-1	ICPs require visibility of procurement assets to assist in fulfilling customer orders through direct-vendor delivery, improve status reporting, and project delivery dates.
IPP-2	Headquarters and major commands require visibility of procured assets to monitor the status of critical procurement actions and production of major end items.
IPP-3	Joint Staff and CINCs require visibility of due-in assets to assist in assessing contingency operations and preparing special operations plans.
IPP-4	Weapon systems managers require visibility of the manufacturing of major end items to monitor production and delivery schedules, plan for deliveries, and answer questions on production status and fielding from operational commanders.
IPP-5	Retail managers require visibility of wholesale assets due-in from procurement for materiel planning purposes.
IPP-6	Intermediate- and depot-level maintenance facilities require visibility of wholesale assets due-in from procurement for monitoring maintenance actions that are awaiting parts.
IPP-7	ICPs require visibility of materiel stored by commercial firms under rotational contracts.

Figure III. C-4 Rationale for In-Procurement Visibility

Figure III. C-5, on the next page, provides the rationale for visibility requirements of in-repair assets for the various organizations within DoD.

No.	JTAV In-Process Repair(IPR) Requirements
IPR-1	OSD requires visibility of in-repair assets to monitor logistics system performance, support mobilization decisions, and evaluate policy, budget and procurement alternatives.
IPR-2	Joint Staff requires visibility of in-repair assets to solve logistics bottlenecks, identify critical assets and logistics support priorities, and support planning/allocation of resources.
IPR-3	Headquarters require aggregate visibility to support deployment/sustainment operations, monitor status/location of critical assets, and to support policy, budget and procurement decisions.
IPR-4	ICPs require detailed visibility of in-repair assets at depot and intermediate maintenance activities to fill customer orders, monitor and provide accurate status and delivery dates, make decisions on new repairs and procurements, negotiate with depots in planning and scheduling repairs, and renegotiate workloads based upon critical shortages.
IPR-5	Weapon system managers require visibility of in-repair assets to assist in planning, deployment, management, and support of principal items and weapons systems, complete sustainability estimates, and perform programming, budgeting and readiness assessments.
IPR-6	Major commands require visibility of in-repair assets when assessing the ability of their forces to execute planning scenarios, manage critical items with limited availability, support deployment and sustainment operations, monitor status/location of assets, and make financial decisions.
IPR-7	CINCs require aggregate visibility of in-repair assets to assess readiness of forces, manage critical items with limited availability, identify logistics bottlenecks, identify theater-critical assets, formulate logistics priorities, support deliberate and crisis planning, and determine asset and lift requirements.
IPR-8	JTF commanders require aggregate and detailed visibility to manage critical items with limited availability, identify logistics bottlenecks, identify critical assets, establish logistics priorities, and support deliberate and crisis planning.
IPR-9	Maintenance and production facilities require detailed visibility to plan, prioritize, and distribute workload and resources, determine the disposition of inbound repairables, monitor status/location of assets supporting the repair process, support evaluation of repair performance, monitor status/location of serviceable/unserviceable assets at intermediate maintenance facilities, monitor status/location of vendor-repaired assets, and identify materiel and equipment requirements to support programmed workloads.
IPR-10	Retail supply managers require detailed visibility of due-outs from depot- and intermediate-level maintenance facilities to anticipate near-term replenishments, preclude redundant shipments, and help maintenance managers forecast readiness and make cannibalization decisions.

Figure III. C-5 Rationale for In-Repair Visibility

The operating characteristics envisioned for achieving visibility of In-Process Procurement assets include:

- electronic transmission to NAVICP's UICP or NOC's CAIMS of all item quantities, delivery dates, and modifications from time of procurement award;

- contractor reporting of excess GFM to NAVICP or NOC for disposition instructions; and
- classification of directed returns of excess GFM as due-in assets.

Visibility of In-Process Procurement assets will permit NAVICP and NOC to provide more realistic information on the status of customers' backorders, thereby increasing customers' confidence in the Navy Supply System.

With respect to the envisioned operating characteristics for achieving visibility of In-Process Repair assets, NAVICP's UICP and NOC's CAIMS will be the central repository for all In-Process Repair information for Secondary Items and Ammunition, respectively. As shown in **Figure III. C-6**, depot level maintenance activities, both organic and commercial, will transmit repair data directly to NAVICP

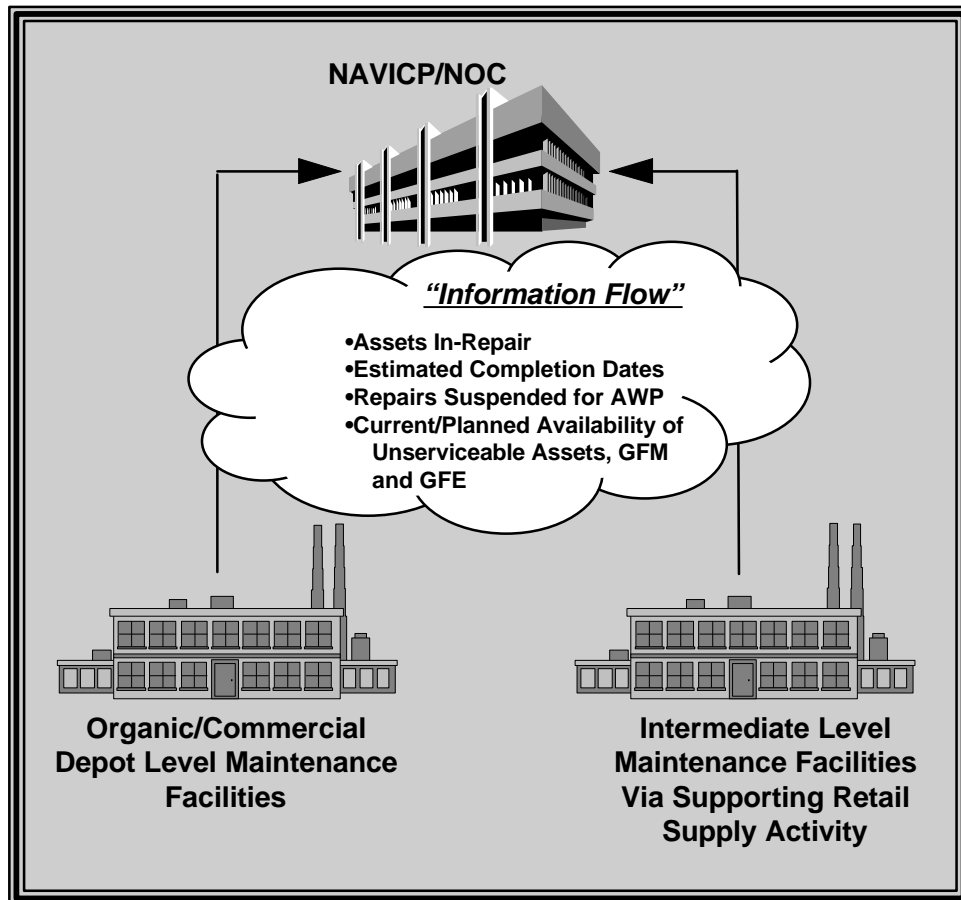


Figure III. C-6 In-Process Repair Information Flow

or NOC. Intermediate maintenance activities will transmit their repair data to NAVICP or NOC via their supporting retail supply activity, e. g., Naval Air Station.

Figure III. C-7 provides the data elements which will be reported to NAVICP or NOC at each point in the retrograde-receipt-induct-repair-return process by the various activities involved.

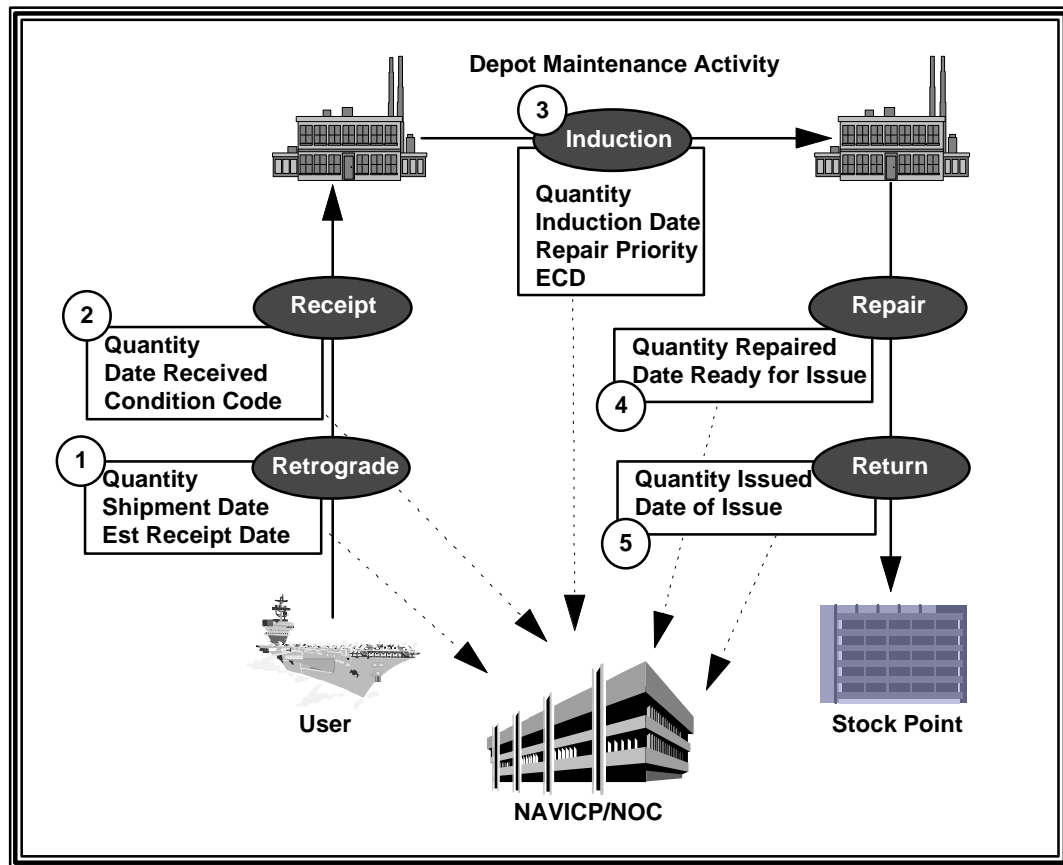


Figure III. C-7 In-Process Repair Data Elements Reported

In addition to the data elements shown above, the following would also be required:

- quantity and date an unserviceable reparable is placed in Awaiting Parts (AWP) status;

- quantity, date, repair priority and estimated repair completion date when an unserviceable reparable in AWP re-enters the repair process; and
- quantity and date for unserviceable reparables condemnation.

The *Joint TAV Implementation Plan* identified seven specific action items for In-Process Procurement and Repair, as shown below:

- identify alternative for linking procurement actions and ICP AIS;
- develop and implement a procurement AIS that monitors contractor performance against contract provisions, notifies contractors of late deliveries, provides for schedule modifications, and provides real-time information on the status of contractor performance to inventory managers;
- develop an interface between Enhanced Vendor Delivery Logistics Manager's data system and LIPS;
- modify relevant material management AISs at depot maintenance facilities to provide national inventory managers with condition code changes;
- develop capability to automatically adjust estimated repair completion dates based on variances between estimated and actual dates, and provide new estimated dates to ICP AIS;
- propose and implement procedures for linking commercial repair and ICP AIS to support exchange of in-process information; and
- develop procedures for revising repair priorities and selectively rescheduling repairs on in-process assets to meet changing requirements.

3. **In-Transit.** The In-Transit Visibility (ITV) segment of TAV provides the capability to track the identity, status, and location of DoD assets as these assets move from point of origin to their ultimate destination. DoD assigned the U. S. Transportation Command (USTRANSCOM) the responsibility for developing a DoD-wide ITV capability. USTRANSCOM published the *Defense In-Transit Visibility Integration Plan (DITV)* in August 1994 which documented current and planned efforts for achieving an ITV capability.

DoD assets, in the context of ITV, are of two types: physical material and personnel. The *DITV Integration Plan* further divides these assets into components and subcomponents, as shown in **Figure III. C-8**.

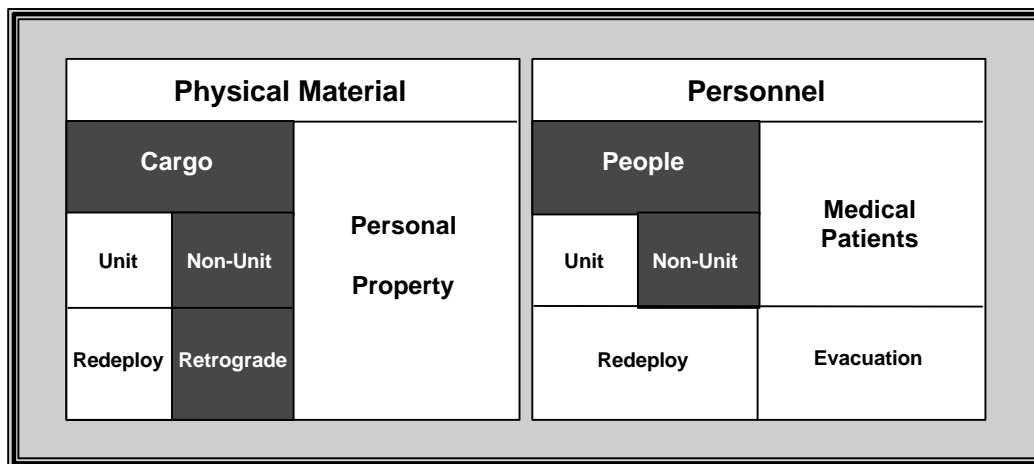


Figure III. C-8 In-Transit Visibility of Assets

The *Joint TAV Implementation Plan* and the *DITV Integration Plan* recognize movement of personal property, e.g., household goods, as a legitimate ITV requirement to ensure quality of life service. However, both documents indicated that current visibility of these particular assets is sufficient. Consequently, it was determined to be more prudent to apply funding and development efforts on commodities that contribute to force deployment and sustainment.

U. S. Navy "unit" movement of cargo capability is being developed by the Naval Engineering Service Center for Navy Construction Battalions (CBs) in conjunction with USMC requirements. ITV for the evacuation of medical patients is being pursued as part of a Tri-Service PAT effort with USTRANSCOM to track the movement of personnel and medical supplies. The remaining portion of this Section will focus on the non-unit movement of cargo, retrograde material, and personnel.

Figure III. C-9 provides the rationale for visibility requirements of in-transit, non-unit movements of cargo and personnel for the various organizations within DoD.

No.	JTAV In-Transit Visibility (ITV) Requirements
ITV-1	DoD requires constant visibility of personnel moving to and from overseas theaters.
ITV-2	Materiel management centers, movement control centers, and receivers require detailed "content" data for routing and receiving at ultimate destination.
ITV-3	Transportation activities require shipment location visibility when assets are in-transit between locations with a commercial carrier which can be achieved using EDI interfaces.
ITV-4	Supply managers, maintenance managers, and theater logisticians require visibility of in-transit assets at the level of requisition number, National Stock Number, unit identification code (UIC), social security number, unit-line number (ULN) and other unique identifiers.
ITV-5	Theater commanders, logistics planners, and shippers need to enhance the identification, reconstitution, and diversion processes in order to meet emergent requirements.
ITV-6	DoD managers require in-transit visibility of assets from origin to destination, not just from Port of Embarkation and Port of Debarkation.
ITV-7	DoD requires the ITV capability that permits a seamless transition from peace to war.
ITV-8	DoD's ITV system must provide linkages among the logistics communities, transportation communities, and theater commanders to permit effective decision-making.

Figure III. C-9 Rationale for In-Transit Visibility

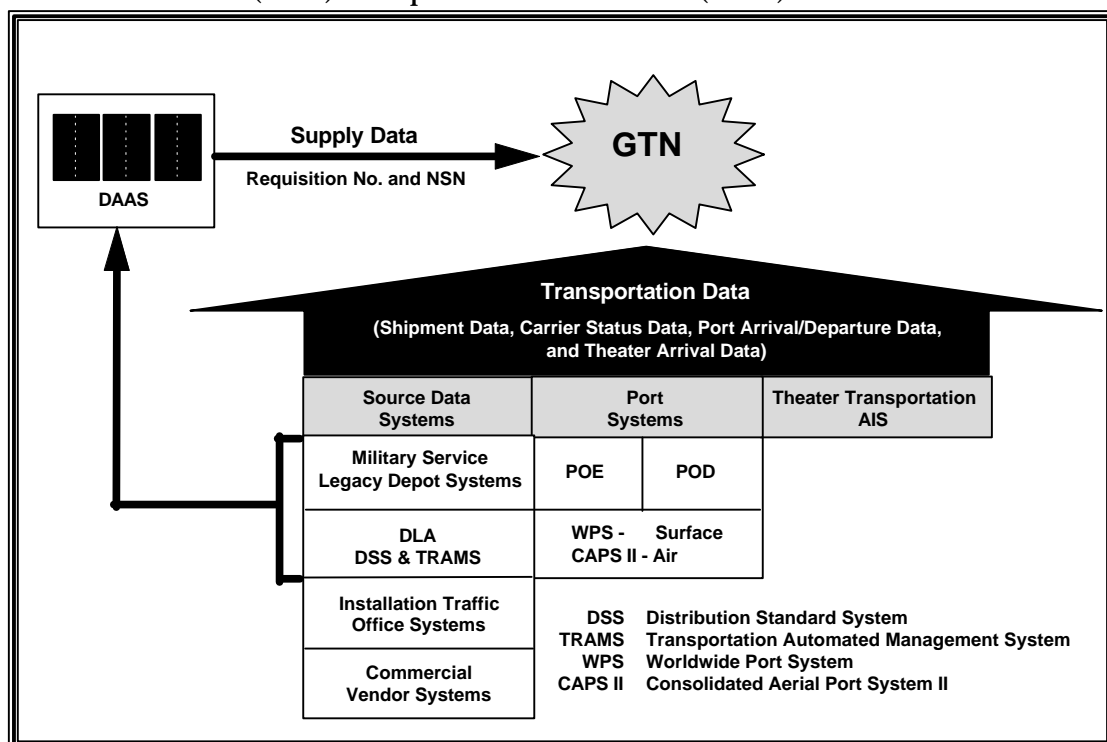
The ITV operating concept for non-unit cargo covers all sustainment material in CONUS, pre-positioned overseas, and aboard afloat units. It is widely recognized that achieving ITV for non-unit cargo movements will reap the greatest benefits for the DoD logistics system. At the same

time, however, achievement of ITV in this area presents the most challenges.

These challenges are the result of millions of non-unit cargo shipments being initiated each year under the following circumstances:

- initiating shipments by 1,000 DoD installation transportation offices;
- using at least eleven different supporting application systems;
- using all modes of transportation;
- using a variety of standard and non-standard formats; and
- originating a third of the shipments from commercial vendors.

Notwithstanding these challenges, USTRANSCOM embarked on an effort in the late eighties to develop the Global Transportation Network (GTN) system to aid in satisfying its mission of global transportation management. GTN consists of four subsystems: current operations; future operations; patient movement; and ITV. With respect to ITV, USTRANSCOM has focused its ITV development efforts on achieving in-transit visibility of cargo, as well as personnel, between the port of embarkation (POE) and port of debarkation (POD). The ultimate vision



for GTN ITV for non-unit cargo is summarized in **Figure III. C-10**.

While significant progress has been made to date, four specific actions must be accomplished before a fully acceptable non-unit cargo ITV capability exists. These four actions are:

- ensuring that commercial carriers can provide the shipment status information required for achieving ITV;
- developing a (deployable) theater transportation system capable of providing GTN with ITV data from any theater;
- expanding Defense Transportation Tracking System (DTTS) from ammunition to use satellite tracking for other modes of transportation and other commodities, as well as for OCONUS shipments; and
- developing GTN interfaces with other transportation systems, e.g., CONUS Freight Management (CFM), Worldwide Port System (WPS), Consolidated Aerial Port System II (CAPS II), and DTTS, as well as the development of Transportation Coordinator's Automated Information for Movement System II (TC-AIMS-II).

With regard to non-unit movement of personnel, DoD requires the capability to track the identity, location, and movement of personnel to ensure field units and naval combatants are brought to full Manning strength in a crisis or wartime situation. Because so many personnel travel by commercial carrier today, fulfilling this DoD requirement presents some unique challenges. The centerpiece of the ITV concept of operations for non-unit personnel is the Passenger Reservation and Manifesting System (PRAMS) currently used by the Air Force's Air Mobility Command (AMC). PRAMS records non-unit passenger reservations, issues boarding passes, and generates the aircraft manifests for AMC aircraft at fixed aerial ports of embarkation. AMC is currently working with the commercial airline industry to establish interfaces between PRAMS and the commercial reservation systems so

that commercial passenger information is available within PRAMS. AMC is also working with the U. S. Army to establish linkages between PRAMS and the Army's Replacement Operations Automation System (ROAMS) which identifies Army non-unit personnel movements. The ITV concept of operations for non-unit personnel movements envisions PRAMS providing to GTN all available information on passenger movement as shown in **Figure III. C-11**.

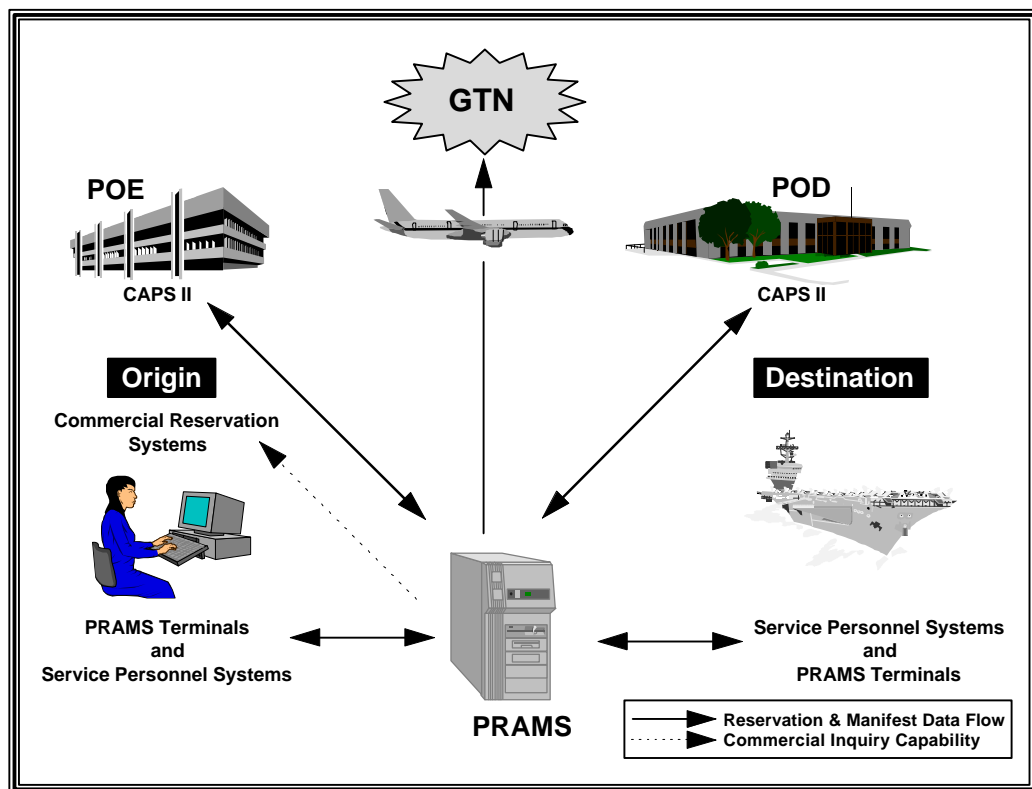


Figure III. C-11 Concept of Operations - Non-Unit Personnel

When the commercial reservation systems and the Army's ROAMS are interfaced with PRAMS, the only remaining action remaining to achieve the desired concept of operations is to develop the requisite interfaces with the Navy's and Marine Corps' non-unit personnel movement systems. Once this is accomplished, all non-unit personnel movement information will be available within PRAMS which, in turn, will update GTN.

4. In-Theater. Logistics management in any given theater of operations is generally performed in an environment of uncertainty and many challenges. The lack of asset visibility in such an environment can result in serious consequences. Therefore, effective management of the logistics processes is essential in coordinating the build-up, pre-positioning, and movement of forces and infrastructure to support any contingency operation. CINCs and JTF commanders must have visibility of the assets already in-theater, as well as those assets enroute to the theater to effectively perform their mission. **Figure III. C-12** provides the reasons that the CINCs and JTF commanders require such visibility.

No.	JTAV In-Theater Visibility (ITV) Requirements CINCs and JTF Commanders Require Visibility to:
ITH-1	Support deliberate and crisis planning;
ITH-2	Manage the deployment, reception, onward movement, integration, and employment of inbound forces and supplies and all intra-theater movement of assets;
ITH-3	Improve the management of in-theater assets to maximize their utilization;
ITH-4	Monitor the redeployment of forces and the retrograde of materiel;
ITH-5	Identify the status, quantity, and location of all pre-positioned assets;
ITH-6	Monitor the status and location of unit equipment and cargo, major end items, and sustainment materiel;
ITH-7	Identify and resolve logistics bottlenecks in satisfying theater requirements;
ITH-8	Allocate critical assets;
ITH-9	Monitor personnel destined for, operating in, or departing from the theater of operations;
ITH-10	Manage theater host nation support requirements;
ITH-11	Support operations in other than war; and
ITH-12	Support theater doctrine, budget, and procurement decisions.

Figure III. C-12 Reasons for In-Theater Visibility

In-theater visibility of assets will be provided by the JTAV systems deployed within the CINCs and as well as those scheduled for deployment in accordance with the *Joint TAV Implementation Plan*. JTAV

will function as the central repository for JTF asset data because of its ability to translate Military Service application information to a common data base. The concept of operations for JTAV envisions the following:

- JTAV will employ both a client-server and web browser architecture that will consist of a server/data base manager, a network manager, a communications manager, and any number of clients; e.g., JTF Staff, Fleet Commanders;
- deployed units and supporting organizations will be able to access JTAV to pass information and to make inquiries of the CONUS support establishment;
- existing Military Service applications will continue unchanged to support normal logistics functions. Military Service application data bases will be linked to the JTAV repository data base which will provide JTF commanders enhanced visibility of theater assets and the interoperability of forces within the JTF;
- the JTAV central repository will also link the deployed task force with the support establishment in both CONUS and OCONUS to provide visibility of inbound shipments;
- a variety of communications media must be available to support existing Military Service capabilities and the theater with the supporting establishment. Integral to the JTAV architecture will be high-quality communications connectivity to the CONUS support establishment;
- JTAV must provide the connectivity to the Military Service applications through whatever means the Military Services can support; and
- the JTAV data base will be kept accurate and timely through electronic updates.

JTAV will use the concept of shared information consistent with J4is GCSS strategy to provide JTF commanders visibility of in-theater assets and in-bound assets. Transportation data will be provided by GTN, supply data will be provided by DAAS/LIPS, inventory data will be provided by the Military Service's ICP AISs, and personnel data will be provided by DMDC (Defense Manpower Data Center), as shown in **Figure III. C-13** on the next page.

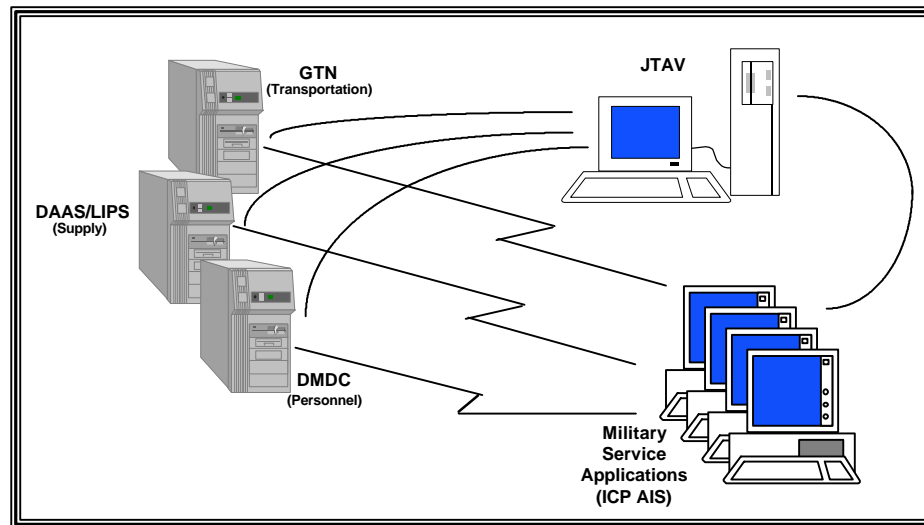


Figure III. C-13 JTAV Concept of Operations

JTAV is being developed as a rapid prototyping system. Therefore, the operational concepts highlighted above will continue to evolve throughout the developmental process as feedback is obtained from CINCs, Military Services, Joint Staff, and other users in response to field testing. The *Joint TAV Implementation Plan* cited nine actions to be accomplished as indicated below:

- coordinate functional requirements for evolutionary enhancements of JTAV;
- define JTAV's communication requirements, including those of deployable units;

- interface JTAV with selected Military Service application systems;
- demonstrate rapid prototype JTAV capabilities in support of the Joint Warrior Interoperability Demonstration (JWID);
- develop an implementation plan for fielding JTAV capability to theater CINCs;
- capture information on manpower requirements during the demonstration period;
- develop metrics for assessing the potential capabilities of JTAV;
- review all DoD business rules that apply to JTAV and resolve any issues; and
- transition the JTAV prototype to a full-scale acquisition program.

4. Requisition Tracking. While the main focus of TAV is the identification of assets in-storage, in-process, in-transit, and in-theater, TAV also includes the element of Requisition Tracking. A requisition is not an asset; rather, it represents an order for an asset. Users and logistics planners at all levels need to know the real-time status of submitted requisitions. There are seven specific events involved from submission of a requisition until the material is received by the user, as shown in **Figure III. C-14.**

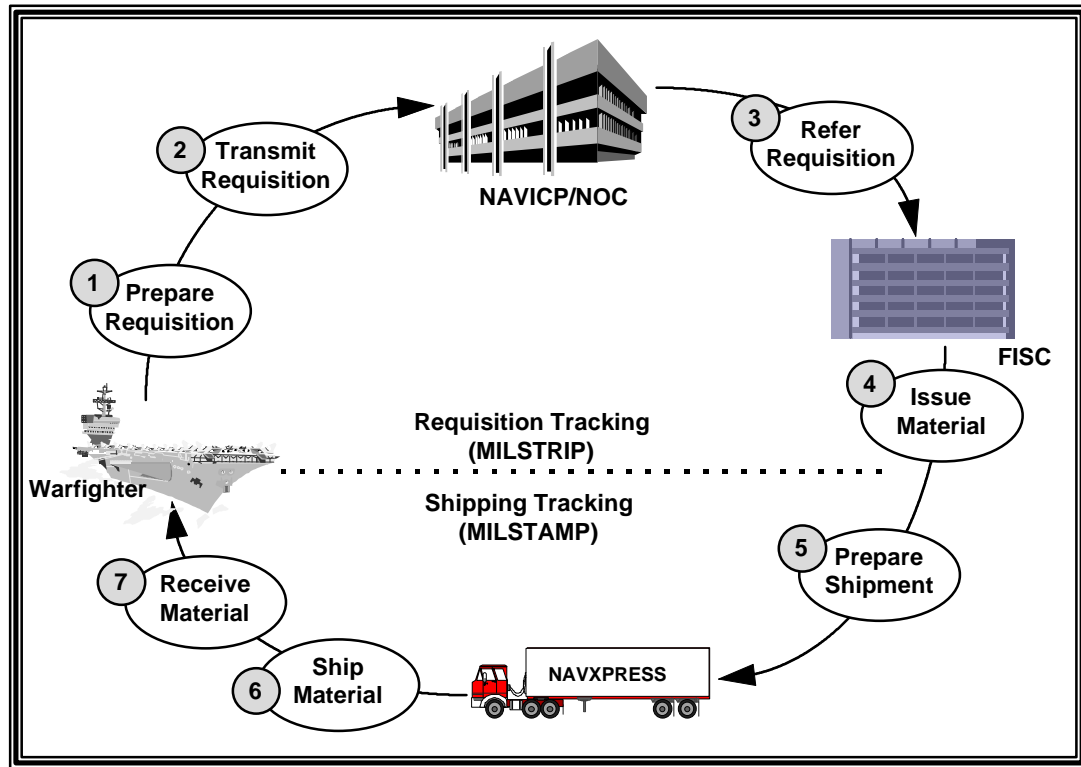


Figure III. C-14 Requisitioning Events

Current MILSTRIP procedures requires the status of requisitions to be provided by DOD's logistics systems.

Figure III. C-15 provides the rationale for Requisition Tracking requirements by various organizations within DoD.

No.	JTAV Requisition Tracking Requirements
TR-1	End users require visibility of delivery quantities and expected delivery dates of materiel in-transit to prevent submitting duplicate requisitions.
TR-2	Retail supply activities require visibility of outstanding requisitions so they can respond to end-user queries on the expected availability of all assets on order.
TR-3	Headquarters and major commands require visibility of outstanding requisitions, delivery quantities and dates, or materiel in transit to monitor the status of critical orders.
TR-4	CINC and JTF planning staffs require visibility of outstanding requisitions to assess contingency operations and prepare operational plans.
TR-5	Intermediate- and depot-level repair activities require visibility of on-order materiel needed for repair to schedule workload and status of repair actions that are awaiting parts.
TR-6	Logistics managers throughout the supply system require the capability to track requisitions for purposes of capturing various logistics performance data.

Figure III. C-15 Rationale for Requisition Tracking

The Logistics Information Processing System (LIPS) and the Global Transportation Network (GTN) were identified by DoD as the two systems to meet the real-time, requisition tracking challenges. The Defense Automatic Addressing System Center (DAASC) has already fielded LIPS as the central repository and standard query system for requisition tracking and reporting of logistics response time. LIPS captures information flowing through DAAS under MILS transactions (e.g., MILSTRIP and MILSTAMP). GTN has been developed by USTRANSCOM and is the central repository for all transportation information.

The concept of operations for requisition tracking consists of the following:

- real-time query capability that will enable users to monitor the status of all requisitions;
- LIPS will be the primary repository for all requisition status data;

- LIPS, through interfaces with DAAS and GTN, will track requisitions from date submitted until the date material is received by the requisitioner;
- requisitions filled by intra-Service lateral redistribution will be tracked only at the Military Service level;
- requisitions filled by inter-Service lateral redistribution will be managed, controlled, and tracked by the respective ICP AIS systems;
- LIPS automatically updates the JTAV database so that CINCs and JTF commanders will have the most current information on requisitions submitted from within theater; and
- LIPS will provide requisition data to DoD component systems that maintain historical data bases.

The *Joint TAV Implementation Plan* identified seven specific action items for Requisition Tracking, as shown below:

- review, and revise as required, Military Service and Defense agency procedures to ensure all wholesale requisitions are either being routed through DAAS, or images are being provided to DAAS for inclusion in LIPS;
- develop policy and implement procedures that require receiving activities to provide receipt information via DAAS to the Integrated Material Managers (IMMs);
- provide demand data on non-IMM-managed redistributions to IMMs via DAAS;
- modify local customer interfaces to LIPS to ensure they contain logic verifying local status before sending queries to LIPS;

- ensure GTN and LIPS share sustainment, supply, and related transportation data;
- improve MILSTRIP status reporting to end users; and
- determine, in conjunction with the Military Services, reporting requirements for intra-Service lateral redistributions.

This *Section* summarized the TAV concept of operations in totality and identified the specific requirements, concept of operations, and action items in the areas of In-Storage, In-Process, In-Transit, In-Theater, and Requisition Tracking.

IV. Navy TAV Organization Structure

- A. **Charter.** The Director, Supply Programs and Policy Division (N41) in the Office of the Deputy Chief of Naval Operations (Logistics) established the Navy Total Asset Visibility (NAVTAV) Coordination Office in June, 1997. Under the NAVTAV Charter, the NAVTAV Office is staffed with a Project Officer and Deputy Project Officer. The Project Officer reports directly to the Head, Spares Program and Policy Branch (N412) and coordinates all TAV related actions with the Head, Ordnance Resources Branch (N411) and Head, Transportation and Petroleum Branch (N413). The Project Officer also conducts liaison with the JTAV Office, as well as the Personnel and Medical offices within OPNAV. Working through N411 and N412, the Project Officer interfaces with the Naval Ordnance Command (NOC) and Naval Supply Systems Command (NAVSUPSYSCOM) on all TAV initiatives.

B. Responsibilities. The NAVTAV Coordination Office performs a central role as the functional coordinator for Navy TAV. It serves as the proponent for Navy TAV and coordinates Navy's TAV requirements. It must ensure that the Navy's TAV policies, processes, initiatives, and programs are fully synchronized with and support the *Joint TAV Implementation Plan*. The Office coordinates, in conjunction with other Military Services, the Defense Logistics Agency (DLA) and the JTAV Office, the appropriate application of logistics-related systems and related enabling technologies, such as Automatic Identification Technology (AIT), to provide for technological advances and process improvements.

The specific responsibilities of the NAVTAV Office include:

- Develop a Navy Total Asset Visibility Strategic Plan which supports the DoD Logistics Strategic Plan and the *Joint TAV Implementation Plan*. The Navy's TAV Strategic Plan, as a minimum, will identify all "initiatives", either implemented or planned, in the areas of In-Storage, In-Process, In-Transit, and Requisition Tracking for all Secondary Items and Ammunition.
- Maintain liaison with the JTAV Office to ensure appropriate Navy managers are cognizant of on-going efforts with the joint arena and the possible impact on Navy initiatives.
- Maintain liaison with the United States Transportation Command (USTRANSCOM) in order to remain abreast of their initiatives and programs that affect the In-Transit element of TAV.
- Oversee the development, integration and implementation of Navy's TAV efforts.
- Identify planned Navy TAV initiatives, establish priorities for future implementation in conjunction with the appropriate commands, and monitor implementation.
- Act as the Navy's catalyst in exploring and identifying new technologies that would "enable" TAV objectives to be accomplished in the most cost-effective manner.

C. Organization. Figure IV.A-1 shows the organizational structure for Navy TAV. TAV is coordinated at the OPNAV level, and TAV strategic planning, programming, implementation and follow-up is performed at the SYSCOM level.

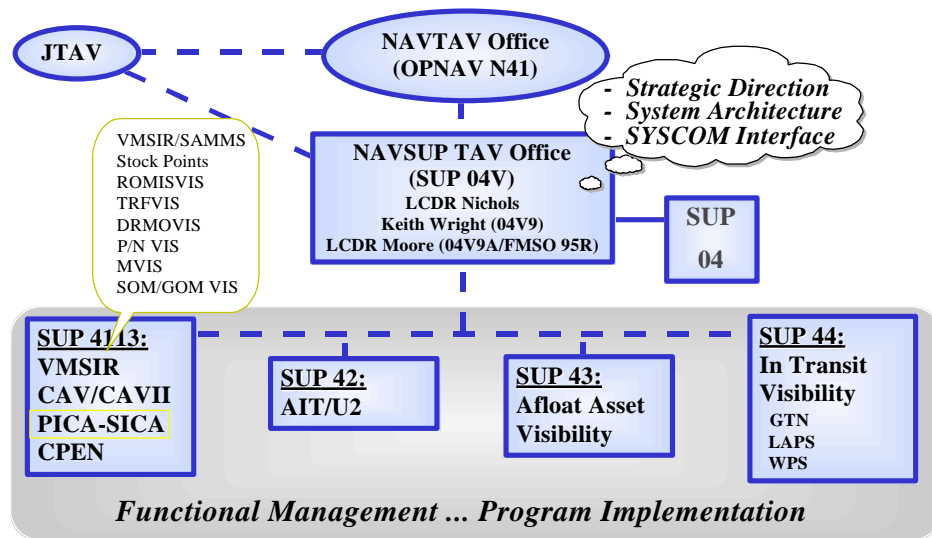


Figure IV. A-1 NAVTAV Organization Chart

V. Summary of Navy TAV Initiatives

- A. Overview.** The Navy currently possesses adequate TAV capabilities for assets that fall under the following categories: NAVSUP owned and managed inventories such as wholesale material owned and managed by the Naval Inventory Control Point (NAVICP), retail material owned by the FISCs or their regional partners and managed by the FISC for the entire region, and residual assets held at RAM sites; and wholesale and retail ammunition assets owned and managed by the Navy Ordnance Command (NOC).

However, there are additional Navy owned inventories that require TAV system development or initiative refinement. These include Sponsor Owned Material (SOM) / Government Owned Material (GOM), In-Use assets aboard afloat units, In-Process assets, Hazardous Material (HAZMAT), and Disposal items.

- B. NAVTAV System / Initiative Summary.** Figure V. A-1 lists the Navy TAV related systems and initiatives that are either implemented, or are in planning or under development. Each system or initiative maps over to an associated inventory as shown.

System / Initiative	Whole-sale	Retail	Residual	SOM / GOM	In-Use (Afloat)	In-Process	HAZMAT	Dis-posal
ANSRS	X	X	X		X			
ATAC+	X					X		
CAIMS (Ammo)	X							
CAV-PC	X Less data C,H & J	X				X		
CIC FISC		X					X	
CPEN	X	X	X				X	
CRAMSI			X	X				
FACTS Fleet					X			
FITS/FIMARS		X			X			
IIP	X	X	X				X	
IRISVIS								X
ILSMIS	X	X	X	X				
ISV-R	X							
JCALs	X	X	X	X	X	X	X	X
MFCs	X	X			X			
MODIS (MAIL)								
PC34/ SNAPSHOT	X							
PVIS		X						
RAM			X					
RHMMSVIS		X	X				X	
RDO/RFI	X							
ROMISVIS			X	X				
SALTS	X	X	X					
TIR Wheel	X	X						
UADPS	X	X					X	
UICP	X							
VMSIR	X	X	X				X	
VMSIR-SAMMS		X	X					
VMSIR@TRF		X						

Figure V. A-1 NAVTAV System / Initiative by Inventory

Additionally, the Navy TAV systems and initiatives listed above can be grouped into three categories as shown in **Figure V. A-2**: (1) existing applications or initiatives designed primarily as a Navy TAV system, (2) data base information systems that house TAV data, but were not

previously designed as a TAV system, and (3) TAV enablers that assist the user in acquiring and presenting TAV data. **Figure V. A-2** also lists the implementation status for each system / initiative.

System / Initiative	TAV System / Initiative	Asset Database	TAV Enabler	Implementation Status
ANSRS			X	FY 1998
ATAC+	X	X		FY 1998
CAIMS (Ammo)		X		IMPLEMENTED
CAV-PC	X	X		FY 1998
CIC FISC			X	IMPLEMENTED
CPEN			X	IMPLEMENTED
CRAMSI	X	X		IMPLEMENTED
FACTS Fleet	X			IMPLEMENTED
FITS/ FIMARS	X	X		IMPLEMENTED
IIP (SHPYD MM, etc)	X			FY 1998
IRIS / IRISVIS	X			FY 1998
ILSMIS		X		IMPLEMENTED
ISV-R	X			FY 1998
JCALS	X			FY 1998
MFCS			X	IMPLEMENTED
MODIS	X			IMPLEMENTED
PC34/ SNAPSHOT			X	IMPLEMENTED
PVIS	X			FY 1999
RAM	X	X		IMPLEMENTED
HSMS/HICS / RHMMSVIS	X	X		FY 1998
RDO/RFI	X			FY 1998
ROMIS / ROMISVIS	X	X		FY 1999
SALTS			X	IMPLEMENTED
TIR Wheel	X			IMPLEMENTED
UADPS		X		IMPLEMENTED
UICP		X		IMPLEMENTED
VMSIR	X			IMPLEMENTED
VMSIR-SAMMS	X			IMPLEMENTED
VMSIR@TRF	X			FY 1998

Figure V. A-2 NAVTAV System / Initiative by Category

Detailed information on each NAVTAV system/initiative listed above can be found in Appendix A. The appendix also assesses each initiative's contribution towards meeting the *Joint TAV Implementation Plan*.

Recommendations for the inclusion of additional initiatives shall be provided to the Navy TAV Coordination Office, OPNAV Code N412E.

VI. Navy's TAV System Architecture

- A. Overview.** The Navy's TAV System Architecture will allow Navy owned assets to become both visible and accessible to authorized Navy and DoD warfighters and logisticians. The architecture will center around the following principles:

1. Single log-in capability
2. Capable data search engine (global data manager)
3. DUSD(L) approved security solution
4. WEB-enabled access
5. Open architecture design
6. DII COE compliance

The principles shown above are in line with customer needs and follow guidance as set forth in DoD's Joint Technical Architecture (JTA) and the Defense Information Systems Agency (DISA) technical system requirements.

- B. Discussion.** The Navy's TAV System Architecture will capitalize on existing technologies and connectivity that provide maximum performance and enhanced capabilities to the customer. Examples of existing communication connectivity options include the NIPRNET and the Internet (via Internet Service Providers (ISPs)). Data access and retrieval will be made possible through a Global Data Management (GDM) capability, such as the JCALS Global Data Management System, that will provide access from a single PC into multiple, likely disparate, automated information systems holding target data and/or application software. Proper log-in security, such as the JCALS security solution, will be provided such that only authorized users will gain access to the target data and applications. Web technologies will be used to expand the user base to the maximum extent possible. An open system architecture will be used to rapidly incorporate or modify system software. Regarding system compliance, hardware and software solution sets adopted for total asset visibility will be required to comply with the the Defense Department's Joint Technical Architecture (JTA), especially if the solution set

involves new acquisition. JTA compliance requires the adoption of the Defense Information Infrastructure (DII) Common Operating Environment (COE) to ensure established run time specifications are used, and DII COE software reuse requirements are followed. Additionally, DII COE is mandated by Joint Vision 2010's Global Combat Support System strategy.

- C. **NAVTAV System Architecture.** Figure VI. A-1 provides an overview of the TAV System Architecture and consists of a single security login through a set of business rules (such as access limits, allowed draw down of information or material, and applicable charges), that passes through a global data management system to either data or a combination of data and applications.

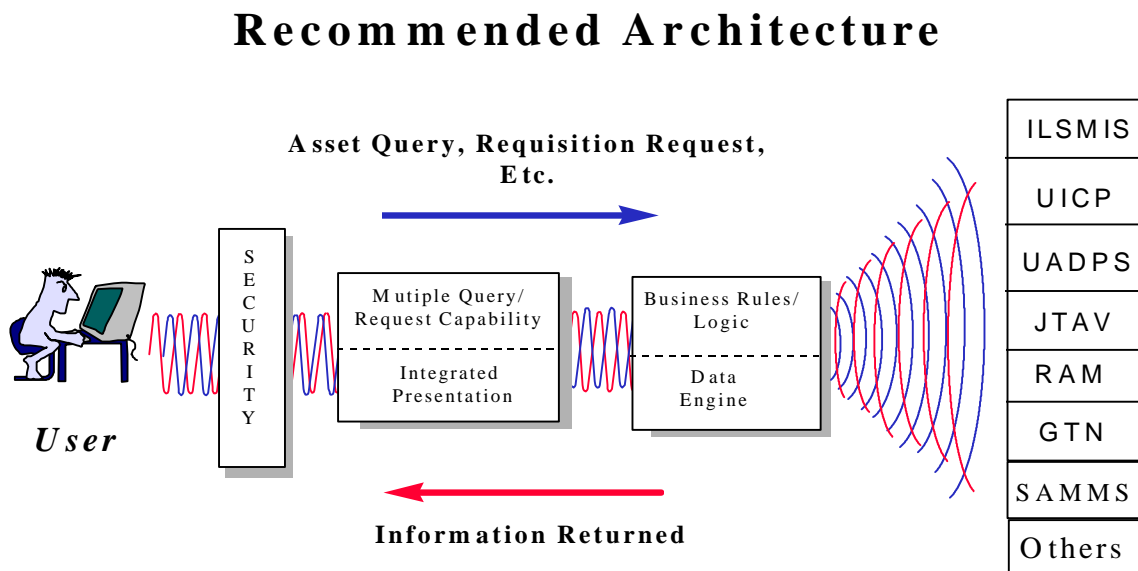


Figure VI.A-1 NAVTAV System Architecture

Additionally, the architecture will enable users to access DoD systems such as Joint Total Asset Visibility (JTAV), Personal Computer Logistics Information Network (PCLINK), and Global Transportation Network (GTN). A web link to GTN provides in-transit visibility information. A web link to PCLINK provides the user with access to CONUS logistics systems for Service wholesale, retail and excess asset data, as well as requisition status and technical research. Once completed, the JTAV web site will provide DoD users with

joint in-storage, in-process and in-theater asset visibility, to include ammunition asset data.

- D. Strategy.** The “To Be” Navy TAV System Architecture will be achieved incrementally. In the near term (i. e. during FY 1998), Navy will develop a proof of concept using the JCALS tool set to access disparate data bases via a single login to achieve asset visibility (i.e. see the assets) and accessibility (i.e. perform transactions against the assets). The proof of concept will focus on disparate asset data, such as Sponsor Owned Material (SOM) which is not readily visible and accessible to Navy logisticians.

If successful, the Navy TAV proof of concept will be expanded to other Navy TAV information systems. The implementation schedule will be determined, and will depend upon the status or implementation schedule of each TAV initiative as outlined in Appendix A.

VII. Training

- A. Background.** DOD investments in new programs and technologies within the past few years have led to rapid advances in Total Asset Visibility (TAV) and In-Transit Visibility (ITV). These advances were fueled by wartime requirements identified during Operation Desert Storm. Shortly after Desert Storm, Navy fielded VMSIR and SNAPSHOT, and DLA developed PCLINK, all designed to achieve wholesale and retail In-Storage, some In-Process, and limited In-Transit information. By 1994, these programs were incorporated into SALTS to provide additional TAV capabilities across a broader user base. Many other capabilities have since been developed and are readily available through a variety of client server type programs and through the World Wide Web.
- B. Issue.** Navy schools have been unaware of developments in TAV and ITV and, therefore, have not developed curricula to support these new advances in capability. With the complex electronic battlefield gaining momentum, it is of great importance that emphasis be placed on training the most efficient/modern technologies and programs available. Significant improvements in all echelons of the logistic infrastructure could be realized if

these new advances were readily understood by the logistics work force and key logistics managers.

- C. **Discussion.** To effectively advance the use of TAV technology and improve overall Supply System performance, training should be provided to Logistic Managers, Customer Assistance Teams, Distribution Operators and requisitioners/customers. An example of customer unfamiliarity is the large volume of calls to customer service organizations for inventory and requisition status. Approximately 50% of all customer calls to FISCs, NAVICP and DLA are inquiries for requisition status, and 25% are for asset visibility checks. Programs such as SALTS, VLIPS, PCLINK and GTN are now readily available to answer these types of inquiries. In fact, queries can be generated and responses received in less time than it takes to call and wait to speak to a customer service representative.

Additionally, proper use of these new information sources could significantly increase Supply System effectiveness, reduce logistic footprint, and reduce duplicative requisitioning practices due to improve confidence in the Supply System.

- D. **Strategy.** The Navy TAV infrastructure will include representatives from our training commands to ensure TAV capabilities are incorporated into appropriate training curricula for Enlisted and Officer personnel. The following training initiatives will be reviewed and, if necessary, developed during fiscal year 1998 by the appropriate training offices with assistance from the Navy TAV Office:

-
- Incorporation of TAV/ITV training into existing NSCS Supply Officer pipeline training. Training should include familiarization in TAV enabling technologies.
- Coordination of training requirements for other appropriate Officer and Enlisted Line and Maintenance communities.
- A two day TAV Training course, sponsored by the Navy Supply Corps School (NSCS), in a Mobile Training Team (MTT) format. The MTT format would be exportable to the fleet and would include "real-time hands-on" TAV training to appropriate supply and maintenance personnel.
- Creation of implementation teams to provide TAV training assistance with software and internet connectivity for all afloat platforms and shore stations in fleet areas.
- Formal assistance, as required, from Fleet Training Centers (FTC) to support fleet training requirements.
- Incorporation of TAV into PQS requirements, where appropriate.

- Creation of standards to measure training effectiveness. For example, statistics covering quantity and types of customer service calls, and subsequent cost savings realized through the use of TAV vs. telephone inquiries.

Detailed Analysis of Navy TAV Initiatives and JTAV Comparisons

Over the years, Navy has identified numerous initiatives that have and will continue to expand asset visibility throughout the Navy Supply System and DoD. *Appendix A* identifies these initiatives, provides background information, discusses each initiative's development, reveals the status of implementation, and assesses each initiative's contribution to JTAV.

TAV System/Initiative Number	Page
ANSRS (AUTOMATED NON-STANDARD REQUISITIONING SYSTEM).....	61
ATAC+ (EXPANDED AUTOMATED TRACKING AND CONTROL)	64
CAIMS (CONVENTIONAL AMMUNITION INTEGRATED MANAGEMENT SYSTEM).....	67
CAV-PC (COMMERCIAL ASSET VISIBILITY - PERSONAL COMPUTER)	71
CIC FISC (CUSTOMER INFORMATION CENTER (CIC) AT FISCs).....	74
CPEN (CENTRAL POINT OF ENTRY NETWORK).....	77
CRAMSI (CONSOLIDATED RESIDUAL ASSET MANAGEMENT SYSTEM INTERFACE)	79
FACTS FLEET (FLEET AUTOMATED CONTROL TRANSPORTATION SYSTEM)	82
FITS/FIMARS (FORCE INVENTORY TRANSMISSION SYSTEM/FLEET INVENTORY MANAGEMENT ANALYSIS AND REPORTING SYSTEM)	84
IIP (INDUSTRIAL INTERFACE PROGRAM)	88
IRISVIS (INTERROGATION REQUIREMENTS INFORMATION SYSTEM VISIBILITY).....	91
ILSMIS (INDUSTRIAL LOGISTICS SUPPLY MANAGEMENT INFORMATION SYSTEM)	93
ISV-R (INTERSERVICE VISIBILITY AND REDISTRIBUTION).....	96
JCALs PROTOTYPE (JOINT COMPUTER-AIDED ACQUISITION AND LOGISTICS SUPPORT)	99
MFCS RETAIL (MATERIAL FINANCIAL CONTROL SYSTEM)	102
MODIS (MILITARY ORIGIN DESTINATION INFORMATION SYSTEM).....	105

PC34/SNAPSHOT	107
PVIS (PART NUMBER VISIBILITY).....	111
RAM (RESIDUAL ASSET MANAGEMENT)	114
RHMMSVIS (REGIONAL HAZARDOUS MATERIAL MANAGEMENT SYSTEM/CENTRAL POINT OF ENTRY VISIBILITY)	116
RDO/RFI (REDISTRIBUTION ORDER/READY FOR ISSUE)	119
ROMIS-VIS (REAL TIME OUTFITTING MANAGEMENT INFORMATION SYSTEM - VISIBILITY).....	122
SALTS (STREAMLINED AUTOMATED LOGISTICS TRANSMISSION SYSTEM)	125
TIR (TRANSACTION ITEM REPORTING) WHEEL	129
UADPS (UNIFORM AUTOMATED DATA PROCESSING SYSTEM)	132
UICP (UNIFORM INVENTORY CONTROL PROCEDURES)	134
VMSIR (VIRTUAL MASTER STOCK ITEM RECORD)	138
VMSIR-SAMMS (VMSIR-STANDARD AUTOMATED MATERIEL MANAGEMENT SYSTEM)	141
VMSIR @ TRF (TRIDENT REWORK FACILITY)	143

ANSRS (Automated Non-Standard Requisitioning System)

Background. Material bought by Navy personnel must be positively identified and originate from proper sources before procurements are initiated. When standard items formally enter DOD's inventory system for National Stock Number (NSN) assignment, they are permanently identified through the cataloging process. Responsibility for finding proper sources then falls on the procurement community. The Naval Supply System Command (NAVSUP) provides such standard material to satisfy about 94% of its customers' needs.

The remaining 6% (~ 450,000 transactions per year) are requisitions for non-standard material for which the NAVSUP's Fleet & Industrial Supply Centers (FISCs) normally have identification and procurement responsibility. This identification process is known as "technical screening". Until now, this screening process has been independently performed in a thoroughly manual process at all FISCs. It was constantly repeated for each procurement with few/no records kept of past transactions and no communication to other activities regarding screening results or subsequent procurements. Also, except for critical CASREP situations, deployed units could not start the supply process for non-standard material until arriving in port — usually with very little time to satisfy the requirement before redeployment. Such constant urgency at the waterfront fostered poor procurement actions. The Navy often paid exorbitant prices, sometimes to vendors of dubious authorization, for material of questionable quality.

Discussion. ANSRS combines several advanced logistics techniques while improving the procurement process. ANSRS' ancestral program, the Technical Screening Expert System (TSES) centered its tech screening function on identifying (and offering substitutes for) hazardous material — promoting compliance with international treaties on HAZMAT items, Ozone Depleting Substances, and plastics removal in the marine environment (PRIME). This still forms the central core of the ANSRS Program. ANSRS connects Navy requisitioners directly to the Navy's community of technical screeners and buyers. The screeners and buyers are connected by a shared database which records all review actions. The program automates the requisitioning and shipboard approval process for hazardous/part-numbered material to the highest possible degree and complies with existing and emerging DOD/Navy requirements and management improvement thrusts, such as its capability to transceive the Electronic Commerce/Electronic Data Interchange (EC/EDI) 511 Transaction Set (Requisition).

Whether the needed material is obtained from the DOD wholesale supply system, locally procured by a FISC, or bought directly from a vendor with an I.M.P.A.C. card, ANSRS will

speed the procurement and accomplish the necessary documentation process. This last feature is particularly important for I.M.P.A.C. users when hazardous material or items critical to the operation of weapons systems are required. Also, procurements of material that is source- or configuration-controlled must be documented before the buy. ANSRS accomplishes this — and more. Upon submitting a subject part number to the system, the user finds whether NIB/NISH/UNICOR sources must be used. ANSRS points to past successful procurements and ensures that complete procurement packages are electronically delivered to buyers. For all buys, including I.M.P.A.C. card purchases, it provides a means of centrally recording transactions as well as any necessary approvals.

Implementation. ANSRS will be installed aboard all Navy ships by NAVMASSO during FY98. All NAVSUP FISCs and several other shore activities have been provided with ANSRS' Procurement Activity module. Other early shore installations will focus on Residual Asset Manager (RAM) sites and SHAPEC activities. ANSRS will also link to the RAM Program to maximize Navy use of retrograded stocks for free (or greatly reduced cost) issue to users. It will add part-number capability to RAM and will perform a centralizing function for RAM's management of its R-series Navy Item Control Numbers (NICNs).

Contribution to JTAV Requirements. As an enabler, ANSRS will facilitate the automated conversion of part numbered assets to NSN assets. This will in turn enhance the Navy's ability to achieve JTAV visibility requirements for wholesale and retail part-numbered assets.

In addition, ANSRS supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider

- Implement Best Value Products and Services

Summary. ANSRS' capabilities are crucial in the conduct of Navy business. ANSRS will facilitate improved Navy part-numbered and non-standard procurements as it is installed on all ships and deployed to all shore stations and industrial/maintenance activities. That importance will increase even further as more Commercial Off The Shelf (COTS) equipments are fielded and installed as weapons systems components, and as the I.M.P.A.C. process gains greater acceptance and usage Navy-wide. By using ANSRS to identify NSNs and facilitate DOD wholesale procurements logistics response times will be reduced and cost savings can be realized through an enhanced, automated material identification process.

ATAC+ (Expanded Automated Tracking And Control)

Background. The Advanced Traceability and Control (ATAC) Retrograde Depot Level Repairable (DLR) Program was implemented in the mid-eighties. The ATAC Program's objectives were to improve visibility of repairable retrograde (i.e., Not-Ready-For-Issue DLRs) and to reduce repair cycle time for these expensive repairable components.

Discussion. The ATAC Program, as implemented in the mid-eighties and currently operating, consists of two HUBS and several NODES. The two HUBS are located at Norfolk, VA and San Diego, CA. The NODES are located at outlying areas, such as Sigonella, Italy; Jacksonville, FL; Yokota, Japan; and Bahrain. End-users who have DLR retrograde turn-in the NRFI DLRs to the NODES (or to the HUB if in the local area) who transship the retrograde to the HUBS. The latter submits Transaction Item Reports (TIRs) to the NAVICP notifying receipts of the NRFI DLRs and transships the NRFI DLRs to the Designated Overhaul Point (DOP) in accordance with the Mechanized Repairable Item List (MRIL).

The NODES are currently operated by commercial contractor personnel who only perform receiving and transshipment services. At the HUBS, government personnel perform technical screening, TIRing, and MRIL processing.

The major objective of the Expanded ATAC initiative is to move the functions of the current ATAC HUB closer to the DLR "point-of-failure" at the end-user. Thus, the existing ATAC HUBS and NODES would all become NODES. All NODES would perform the functions currently performed only at the HUBS. Under this concept the functions of local pick-up and delivery, technical screening, TIR reporting, MRIL processing, transshipment documentation, bar coding, certification, and packing would be performed by the local NODE.

Expanded ATAC would result in two primary benefits. First, DLR retrograde visibility and accountability would be enhanced as a result of the NODE TIRing receipt of the NRFI DLR to the NAVICP, rather than NAVICP being informed of the asset's availability when it reached Norfolk or San Diego. This enhanced visibility could offset potential procurements of repairables. Second, since the NODES will perform MRIL processing and transship the NRFI directly to the DOP or Designated Support Point (DSP), transportation costs will be reduced by obviating the "double-handling" of DLR retrograde under today's operating procedures.

Implementation. Expanded ATAC has been subjected to a Business Case Analysis (BCA) which recommended its implementation. A Request for Proposal (RFP) must now be developed and issued to industry. It is anticipated that Expanded ATAC will be implemented in FY 1998.

Contribution to JTAV. An assessment of this initiative's contribution to JTAV In-Storage Wholesale requirements is indicated below:

Expanded ATAC

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	No

As shown above, Expanded ATAC contributes directly to only one of the nine JTAV In-Storage Wholesale requirements. However, this accelerated visibility of DLR retrograde may very well contribute to reduced DLR procurements and certainly will result in reduce transportation costs for the Navy.

Additionally, Expanded ATAC contributes to JTAV In-Transit requirements in the context of NRFI DLR visibility at the NAVICP occurring earlier than currently exists under the current ATAC system, as shown below:

Expanded ATAC

<u>Item</u>	<u>Requirement</u>
<u>Contributes</u>	

ITV-1	DoD Requires Visibility of Personnel to/from OCONUS	No
ITV-2	ICP/Transporters/Receivers Require Detailed 'Content' Data	Yes
ITV-3	Transporters Require Shipment Location Visibility	No
ITV-4	Supply/Maintainers/Theater Commanders Require ITV	No
ITV-5	Theater Commanders/Logistics Planners/Shippers Require ITV	No
ITV-6	DoD Managers Require ITV from Origin to Destination	No
ITV-7	DoD requires ITV Capability to Transition from Peace to War	No
ITV-8	Logistics/Transporters/ Theater Require ITV Linkages	No

Based upon the above, Expanded ATAC supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. Expanded ATAC is an initiative that will convert all ATAC HUBS and NODES into all NODES which will move the “receiver” closer to the “point-of-failure”. The initiative will result in NAVICP becoming aware of NRFI DLR retrograde earlier in the processing time frame thereby potentially offsetting DLR procurements. Expanded ATAC will also reduce logistics infrastructure by lowering transportation costs through the elimination of the current “double-handling” in moving DLR retrograde from the NODES to the HUBS to the DOPs.

CAIMS (Conventional Ammunition Integrated Management System)

Background. The Conventional Ammunition Integrated Management System (CAIMS) was developed and implemented at the Navy's Ships Parts Control Center (SPCC) in the mid-seventies to facilitate the management of Navy ordnance stock. In October 1993, the Navy reorganized the ordnance business area and established the Naval Ordnance Center (NOC) in order to address various ordnance logistics management deficiencies identified by Desert Shield/Desert Storm operations and by various working groups and studies such as the Joint Ordnance Wargaming (JORDWAR) process.

Discussion. CAIMS is a classified automated information system which provides NOC worldwide asset visibility and control over Navy conventional ammunition. NOC operates the system and the Fleet Material Support System (FMSS) is the Central Design Agency (CDA). Salient features of CAIMS are a secure database and secure networks or remote telecommunication devices to user activities. CAIMS represents a single database for all Navy conventional ammunition under the management of NOC.

The CAIMS database consists of numerous software application/operation programs which collectively are used to manage approximately 15,000 line items valued at approximately \$42 billion. CAIMS contains all inventory records, records item transactions as well as financial transactions, and maintains technical specifications for item procurement. Conventional ammunition is located at both CONUS and OCONUS stocking activities, as well as aboard ships at sea. Examples of the stocking activities are Naval Weapon Stations, Naval Aviation Warfare Centers, Naval Surface Warfare Centers, Naval Air Stations, Naval Magazines, and Naval Stations.

These activities submit daily Transaction Item Reports (TIRs) which CAIMS uses to update the current on-hand balance, due-in/due-out balances, planned program requirements, etc. for each applicable NIIN.

Implementation. CAIMS is scheduled to be replaced by the migratory Ammunition Management Standard System (AMSS) being developed by the Joint Logistics Support Center (JLSC). Implementation of AMSS is currently scheduled for Year 2000. Until then, NOC is reviewing the feasibility of interfacing CAIMS data to JTAV for joint visibility of ordnance world-wide.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Wholesale and Retail requirements is provided below:

CAIMS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	Yes
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	Yes
ISW-9	Logisticians Require Visibility of Wholesale Assets	No
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	Yes

As shown above, CAIMS contributes to three of the nine JTAV In-Storage Wholesale requirements and to three of the four In-Storage Retail requirements. CAIMS also contributes to the JTAV In-Process requirements; this contribution is shown on the next page.

CAIMS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
IPP-1	ICP Requires Visibility of Procurement Assets	Yes
IPP-2	Headquarters Require Visibility of Procurement Assets	Yes
IPP-3	CINCs Require Visibility of Wholesale Due-Ins	No
IPP-4	Weapons Managers Require Visibility of Wholesale Due-Ins	Yes
IPP-5	Retail Managers Require Visibility of Wholesale Due-Ins	No
IPP-6	IMA/Depot Maintainers Require Visibility of Wholesale Due-Ins	No
IPP-7	ICP Requires Visibility of Material Stored at Commercial Firms	Yes
IPR-1	OSD Requires Visibility of In-Repair Assets	No
IPR-2	Joint Staff Requires Visibility of In-Repair Assets	No
IPR-3	Headquarters Requires Aggregate Visibility of In-Repair Assets	Yes
IPR-4	ICP Requires Visibility of In-Repair Assets at Depot and IMA	Yes
IPR-5	Weapons Managers Require Visibility of In-Repair Assets	Yes
IPR-6	Major Commands Require Visibility of In-Repair Assets	No
IPR-7	CINCs Require Visibility of In-Repair Assets	No
IPR-8	JTF Commanders Require Visibility of In-Repair Assets	No
IPR-9	Maintenance Managers Require Visibility of In-Repair Assets	No
IPR-10	Retail Managers Require Visibility of Due-Outs from Repair	No

As shown above, CAIMS contributes to four of the seven of the JTA V In-Process Procurement requirements and three of the ten In-Process Repair requirements.

Based upon the above, CAIMS supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

Link Process-Driven System to Best Provider

Implement Best Value Products and Services

Summary. CAIMS is the Navy's AIS used in the inventory management of approximately 15,000 conventional ammunition line items valued at \$42 billion. CAIMS provides inventory managers at NOC with the visibility of all requirements and assets in the wholesale system. This visibility permits inventory managers to make issues to Navy customers, identify procurement and repair actions, initiate disposal actions, provision new or modified weapon systems, and redistribute assets within the wholesale system to meet the highest priorities of Navy customer requirements.

CAV-PC (Commercial Asset Visibility - Personal Computer)

Background. Commercial Asset Visibility (CAV) is an asset visibility system designed to obtain visibility of repairable assets located at commercial repair facilities.

Discussion. CAV was implemented by NAVICP-M in 1984 to improve visibility and control of the repairable assets at commercial repair facilities. Although CAV improved visibility, its support of financial records was inadequate. To enhance financial accountability and improve visibility of commercially repaired repairables, CAV was redesigned in 1988 as CAV II. NAVICP-P's counter part to CAV was the Contractor Asset Material Management System (CAMMS). As a by-product of the NAVICP consolidation, CAV II was again redesigned in 1992 to incorporate many of the features of CAMMS. By the end of FY 1996, NAVICP-M had implemented CAV II at 128 activities covering \$600M of repairable assets; NAVICP-P had implemented CAV II or CAMMS at 108 activities covering \$2,330M of repairable assets.

The Joint Logistics Systems Center (JLSC) adopted the Personal Computer (PC) version of CAV II as the migratory system for the Department of Defense. As the migratory system, CAV will provide item managers with the tools necessary to maintain complete accountability and visibility of assets either being repaired at commercial facilities or supporting the repair cycle at the contractor's site. CAV will provide the capability for a range of repair support functions, such as serialized tracking of the repair item from receipt through shipment or condemnation; requisitioning, receipt, and return or consumption of government-furnished material; receipt and return of government-furnished equipment; daily transmission of all transaction information to and from item managers; transmission of requisitions and their status, follow-up and modifier data; and visibility of suspended material, including reports of discrepancy and beyond economical repair candidates and rejected transactions.

Implementation. As mentioned above, CAV was initially implemented in 1986, and received upgrades in 1988 and 1992. CAV II, Version 1.06, was the first multi-service release. Further upgrades to CAV II were released in FY 1996 (Versions 1.07 and 1.08). Additional upgrades are being programmed currently by the Central Design Agency, FMSO, for release in FY 1998.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Process Procurement and Repair requirements is provided below:

CAV

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
IPP-1	ICP Requires Visibility of Procurement Assets	No
IPP-2	Headquarters Require Visibility of Procurement Assets	No
IPP-3	CINCs Require Visibility of Wholesale Due-Ins	No
IPP-4	Weapons Managers Require Visibility of Wholesale Due-Ins	No
IPP-5	Retail Managers Require Visibility of Wholesale Due-Ins	No
IPP-6	IMA/Depot Maintainers Require Visibility of Wholesale Due-Ins	No
IPP-7	ICP Requires Visibility of Material Stored at Commercial Firms	Yes
IPR-1	OSD Requires Visibility of In-Repair Assets	No
IPR-2	Joint Staff Requires Visibility of In-Repair Assets	No
IPR-3	Headquarters Requires Aggregate Visibility of In-Repair Assets	No
IPR-4	ICP Requires Visibility of In-Repair Assets at Depot and IMA	Yes
IPR-5	Weapons Managers Require Visibility of In-Repair Assets	No
IPR-6	Major Commands Require Visibility of In-Repair Assets	No
IPR-7	CINCs Require Visibility of In-Repair Assets	No
IPR-8	JTF Commanders Require Visibility of In-Repair Assets	No
IPR-9	Maintenance Managers Require Visibility of In-Repair Assets	No
IPR-10	Retail Managers Require Visibility of Due-Outs from Repair	No

As shown above, CAV contributes to one of the JTAV In-Process Procurement requirements. CAV also contributes to one of the ten JTAV In-Process Repair requirements in the context of Depot visibility.

Based upon the above, CAV supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. CAV is an asset visibility system that provides NAVICP with visibility of repairable assets at commercial repair facilities from the time of receipt, through induction for repair, and at the time of shipment back to the Designated Support Point (DSP). This enhanced visibility of repairable assets located at commercial activities can be use to offset potential procurement actions of wholesale repairables at the NAVICP.

CIC FISC (Customer Information Center (CIC) at FISCs)

Background. In 1996, the Naval Supply Systems Command (NAVSUP) through the Fleet Industrial Supply Center (FISC) San Diego embarked on an initiative within its Customer Information Center (CIC) in order to enhance responding to customer requisition and stock status inquiries in both timeliness and quality of response.

Discussion. Each FISC's CIC is the focal point for customer inquiries regarding the status of requisitions submitted to the FISC. At FISC San Diego, current processes and existing technology permitted the CIC to respond to only 80% of the inquiries with available manpower. Performance feedback revealed only 55% of customer callers considered customer service satisfactory. To reduce the number of unanswered calls and to increase customer satisfaction, FISC San Diego would require a substantial increase in manpower within CIC. With today's austere funding climate and further reductions planned in the near term, such an alternative was not considered feasible. Consequently, the Navy turned to CIC initiatives and its more state-of-the-art technology as a more feasible alternative.

CIC FISC has three primary objectives:

1. to create and manage a standardized, streamlined process;
2. to improve customer service; and
3. to utilize existing infrastructure to turn data into information.

The CIC FISC process consists of an internet enabled application that will access multiple data bases. A graphical user friendly interface is placed into a WEB Browser allowing the FISC's Customer Service Representatives (CSRs) to make inquiries regarding supply information. The CIC FISC application was developed and prototyped for three scenarios of supply information. One, Supply Status 'BA' meaning material has been issued. Two, Supply Status 'BV' meaning the customer's requisition was forwarded to purchasing for local procurement. Three, Supply Status 'BM' meaning the requisition was referred to an inventory control point. Requisition inquiry under ONESTEP is a one step process with the ease of a user friendly Graphical User Interface (GUI). CIC FISC's retrieval process is transparent to the user. Information appears to be coming from a single source when actually the "servers" behind the scenes are retrieving information from various data base systems, e. g., UADPS-2, APADE, NAVADS, and NISTARS.

The prototype developed was tested at the Internet Development Workshop (IDW) in January 1997. CIC FISC drastically lowered per-call time and dramatically increased productivity by 260%. For the CIC FISC demonstration, a status check was performed using the existing system and CIC FISC. The current system required 35 steps whereas CIC FISC required only 5 steps and brought back more information. The increased capacity of CIC FISC would enable existing staffing to handle all incoming inquiries and provide more time for personalized service to customers.

Implementation. Full design, development and implementation was completed at FISC Pearl Harbor in FY 1997. It is anticipated that the remaining FISCs will implemented with CIC FISC in FY 1998.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to JTAV Requisition Tracking is provided below:

<u>CIC FISC</u>		
<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
TR-1	End Users Require ITV of Quantities/Expected Delivery Dates	Yes
TR-2	Retail Managers Require Visibility of Outstanding Requisitions	Yes
TR-3	Headquarters Require ITV of Quantities/Expected Delivery Dates	Yes
TR-4	CINCs/JTF Staffs Require Visibility of Outstanding Requisitions	Yes
TR-5	IMA/Depot Maintainers Require Visibility of On-Order for Repair	Yes
TR-6	Logistics Managers Require Capability to Track Requisitions	Yes

As shown, CIC FISC contributes to all six of the JTAV Requisition Tracking requirements.

Based upon the above, CIC FISC supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. CIC FISC will dramatically increase productivity and enhance customer service at the FISCs with the customer receiving faster responses to inquiries, as well as better quality information. The enhanced customer satisfaction that will be derived from CIC FISC will directly contribute to customer confidence in the supply system.

CPEN (Central Point of Entry Network)

Background. Once VMSIR was implemented and tangible cost avoidance benefits were identified, a series of TAV initiatives were begun using the VMSIR “technology”. Another of these initiatives, or VMSIR enhancements, was Centralized Point-of-Entry (CPEN).

Discussion. CPEN was developed to standardize the requisition processing of deployed ships with the objective of reducing logistics response time through increased asset visibility. Requisitions with a Service Code of ‘R’ (Pacific Fleet) or ‘V’ (Atlantic Fleet) entering the Defense Automatic Addressing System (DAAS) via SALTS are monitored to determine if the Routing Identifier (card columns 4-6) identifies a FISC. If it does not identify a FISC, e.g., direct requisitioning to NAVICP-Philadelphia, the requisition follows the normal routing process. If the Routing Identifier is a FISC, DAAS will forward the requisition to the designated FISC. Using VMSIR as the data engine in conjunction with the Cargo Routing Identifier File (CRIF), CPEN quickly searches for material availability and matches the availability to the requisitioner’s location thereby identifying the most cost-effective issue point. Moreover, CPEN also brings on-line visibility of excess material owned by the Type Commanders under the Residual Asset Management (RAM) program. If RAM assets are identified for Issue Priority Group II and III requisitions, the customer requisition is forwarded to RAM for issue. Issues executed by CPEN from RAM not only reduce logistics response time, but also result in cost avoidance to the customer since RAM assets are Type Commander owned.

Implementation. CPEN was prototyped in 1995 with expanded implementation occurring in 1996. CPEN clearly contributes to reducing logistics response time for Fleet customers while complementing existing shipboard Point-of-Entry (POE) rules and facilitating the NAVICP central requisitioning processes.

Contribution to JTAV Requirements. CPEN in and of itself does not contribute to any JTAV requirement. However, its integration to the VMSIR program links it to the VMSIR contributions to JTAV as noted in this *Plan*. It has also accommodated the objective of reducing logistics response time and reducing inventory investment by using excess inventories. Thus, CPEN supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time

- Implement Total Asset Visibility

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Reengineer Inventory, Retention & Positioning Strategies

Summary. CPEN is a router for Fleet requisitions submitted to a POE FISC which identifies where assets are available, selects the cost-effective issue point, and routes the requisition to that site for issue. Through CPEN, both inventory investment and logistics response time are reduced.

CRAMSI (Consolidated Residual Asset Management System Interface)

Background. The Consolidated Residual Asset Management Screening Information (CRAMSI) system was designed to consolidate various Naval Sea Systems Command (NAVSEA) and Type Commanders (TYCOM) residual spares and repair parts asset files into a master data base to maximize visibility and reutilization of these residual assets. This tasking resulted from a Ship Configuration and Logistics Support Information System (SCLSIS) Conference in July 1989.

Discussion. The CRAMSI system was implemented in April 1990. Since that time CRAMSI has been used extensively to locate residual assets to satisfy CASREPs, Work Stoppages, Ship Trial Reorder Reviews, SALTS Routine Requests, and requirements of New Construction, Hi-Value, and Fleet Outfitting. The redistribution of these residual assets results in substantial cost avoidance.

Implementation. Currently, there are over 2000 users accessing the CRAMSI database residing in NAVSEALOGCEN. From 1 Oct 96 through 30 Sep 97, CRAMSI processed 7,155 files containing 656,861 requisitions. There were 84,066 (potential fills) totaling a potential cost avoidance of \$84,013,487. Of those hits, 80,536 requisitions were actually filled for a cost avoidance of \$77,641,212. The hit to fill ratio is 96% with an average turnaround time of two days. NAVSEALOGCEN generates a monthly CRAMSI program metric that reflects the performance of CRAMSI in meeting the requesting customer/fleet needs.

CRAMSI has over 2000 registered Military users. CRAMSI receives inquiries from Fleet units and activities such as NAVICP, TYCOMs, Supply Officers and other Supply types aboard Ships/submarines, shore training activities, SUPSHIP Activities, ILOs, DLA, ARMY and Marines, etc.

Contributions to JTAV. An assessment of this initiative's contribution to JTAV In-Storage Wholesale and Retail requirements is indicated below:

CRAMSI

Item
Contributes

Requirement

ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	Yes
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, CRAMSI contributes directly to two of the nine JTAV In-Storage Wholesale requirements and one of the four JTAV In-Storage Retail requirements .

Based upon the above, CRAMSI supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. CRAMSI is considered fully implemented with tremendous buy-in from the Fleet and shore activities. Future efforts will focus on fully integrating CRAMSI with the traditional Navy supply systems for maximum reutilization of residual assets.

FACTS FLEET (Fleet Automated Control Transportation System)

Background. The Fleet Automated Control Tracking System (FACTS Fleet) was developed to improve management oversight of Non-Ready-for-Issue (NRFI) repairable retrograde, (Condition Code 'F') within the Navy's Advanced Traceability and Control (ATAC) system.

Discussion. The objective of FACTS Fleet is to expand line item In-Transit Visibility (ITV) of repairable retrograde to every point in the shipping "pipeline" from the turn-in of the NRFI repairable by the afloat user until receipt at the designated receiving activity such as the ATAC HUB. The point-to-point visibility of retrograde assets is achieved by utilizing EDI technology in transmitting retrograde shipping data.

FACTS Fleet is comprised of three modules: Retrograde Module; Shipping Module; and Transshipment Module. The Retrograde Module imports DOC ID 'BC1' data from SUADPS and generates bar coded Issue Release/Receipt Documents (DD 1348-1; AKA IRRDs) which accompanies repairable retrograde. The Shipping Module is used by shippers to match IRRDs generated by the Retrograde Module with the actual retrograde material, assigns and inputs TCNs/Lead TCNs, and prepares retrograde for shipment/transshipment. The Retrograde Module is updated with shipping information from the Shipping Module. The Transshipment Module records the receipt of retrograde from the shipping unit, as well as any data associated with the repackaging and transshipment.

Implementation. FACTS Fleet was released for Fleet implementation in June 1996. Various upgrades to FACTS Fleet are under review, including RFI (Condition Code 'A') material offloads and support for broader transshipment missions such as those performed by T-AFS ships. Finally, FACTS Fleet functionality will be incorporated into Relational Supply which will permit Fleet-wide implementation in the future.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Transit requirements is provided below:

FACTS Fleet

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ITV-1	DoD Requires Visibility of Personnel to/from OCONUS	No
ITV-2	ICP/Transporters/Receivers Require Detailed 'Content' Data	Yes
ITV-3	Transporters Require Shipment Location Visibility	Yes
ITV-4	Supply/Maintainers/Theater Commanders Require ITV	No
ITV-5	Theater Commanders/Logistics Planners/Shippers Require ITV	No
ITV-6	DoD Managers Require ITV from Origin to Destination	No
ITV-7	DoD Requires ITV Capability to Transition from Peace to War	No
ITV-8	Logistics/Transporters/Theater Require ITV Linkages	No

As shown above, FACTS Fleet contributes to two of the eight JTAV In-Transit requirements.

Based upon the above, FACTS Fleet supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Standardize Afloat Tools and Practices
- Implement Best Value Products and Services

Summary. FACTS Fleet is an initiative to obtain visibility of DLR retrograde in the in-transit pipeline. i.e., from the time the DLR retrograde leaves a Navy ship until the retrograde arrives at its designated receiving activity, e.g., ATAC HUB. This enhanced visibility of the DLR retrograde pipeline should result in less "system losses", thereby reducing inventory investment as well as costly carcass charges to Fleet units.

FITS/FIMARS (Force Inventory Transmission System/Fleet Inventory Management Analysis and Reporting System)

Background. The Force Inventory Management Analysis Reporting System (FIMARS) and Force Inventory Transmission System (FITS) are two related automated systems which together provide the capability for establishing afloat asset visibility and facilitating centralized management of in-use inventory assets held by a group or force of afloat ships.

Discussion. FITS is comprised of a software program and procedures which provide for the generation and SALTS transmission of an automated Asset Visibility Report (AVR) by an afloat unit to a central site. FITS software and procedures are available for installation/use on SNAP I and II ships, as well as aboard ships employing MICROSAP. FIMARS is an automated program intended for use on a central site Personal Computer (PC) receiving FITS AVR via SALTS. Visibility of ship's assets is limited to the respective Type Commanders (TYCOMs). However, for deployed Battle Groups in the Mediterranean, Commander Task Force (CTF) 63 has established a database ashore for the Material Control Officer (MATCONOFF). The same data transmitted via SALTS to the TYCOMs is being used to populate the MATCONOFF database at CTF 63, as well as the CINC JTAV system. This database is sometimes referred to as the Battle Group Asset Management (BAMS) program.

The FIMARS program provides three basic functions:

- maintain a current afloat asset database from the bimonthly-monthly FITS Asset Reports transmitted via SALTS;
- NIIN (or Part Number) query providing a screen display of assets on hand and due-in, along with status, for all FITS reporting sites carrying the part; and
- generate Inventory Management Summary and Detail Reports which are useful in executing either single or multi-ship inventory management responsibilities.

When users of FIMARS select the Query/Report Option, they are provided a choice of two sub-options: Material Availability or Management Reports. For Material Availability, a NIIN or Part Number (or multiple NIINs or Part Numbers) is entered which will result in a presentation of the inventory position (i.e., allowance quantity, on-hand quantities, due-in quantities, and

outstanding stock requisitions and status) for all sites carrying that NIIN or Part Number. For Management Reports, the user can obtain the following reports: Individual Ship Statistical Report; Force Statistical Report; UIC Summary Report; Line Item Detail Report; or Battle Group Excess and Deficiencies Report.

Implementation. FIMARS/FITS will be implemented on all Type Commanders' ships and Marine Aviation Logistics Squadrons (MALS) by the end of FY 1997.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

FIMARS/FITS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, FIMARS/FITS contributes directly to two of the four JTAV In-Storage Retail requirements within the context of defining Headquarters to include Navy TYCOMs.

FIMARS/FITS also contributes to all four of the In-Storage In-Use requirements as follows:

FIMARS/FITS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISI-1	ICP Requires Visibility of In-Use Assets	Yes
ISI-2	Headquarters Requires Visibility of In-Use Assets	Yes
ISI-3	CINCs and JTF Commanders Require Visibility of In-Use Assets	Yes
ISI-4	Weapon System Managers Require Visibility of In-Use Assets	Yes

FIMARS/FITS also contributes to eight of the twelve JTAV In-Theater requirements, as shown below.

FIMARS/FITS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ITH-1	Support Deliberate and Crisis Planning	Yes
ITH-2	Manage Deployment, Reception, Onward Movement, Integration, and Employment of Inbound Forces/Supplies	Yes
ITH-3	Improve Management of In-Theater Assets	Yes
ITH-4	Monitor Redeployment of Forces & Retrograde	No
ITH-5	Identify Status, Quantity, and Location of Prepositioned Assets	Yes
ITH-6	Monitor Status/Location of Unit Equipment & Cargo, Major End Items, and Sustainment Material	Yes
ITH-7	Identify and Resolve Logistics Bottlenecks	No
ITH-8	Allocate Critical Assets	Yes
ITH-9	Monitor Incoming, In-Theater and Departing Personnel	No
ITH-10	Manage Theater Host Nation Support Requirements	No
ITH-11	Support Operations in Other Than War	Yes
ITH-12	Support Theater Doctrine, Budget, and Procurement Decisions	Yes

Finally, FIMARS/FITS also contributes to five of the six JTAV Requisition Tracking requirements as follows:

FIMARS/FITS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
TR-1	End Users Require ITV of Quantities/Expected Delivery Dates	Yes
TR-2	Retail Managers Require Visibility of Outstanding Requisitions	Yes
TR-3	Headquarters Require ITV of Quantities/Expected Delivery Dates	Yes
TR-4	CINCs/JTF Staffs Require Visibility of Outstanding Requisitions	Yes
TR-5	IMA/Depot Maintainers Require Visibility of On-Order for Repair	No
TR-6	Logistics Managers Require Capability to Track Requisitions	Yes

Based upon the above, FIMARS/FITS supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Standardize Afloat Tools and Practices
- Implement Best Value Products and Services

Summary. FIMARS/FITS provides Navy Headquarters (Fleet Type Commanders), deployed Battle Group Commanders, CINCs, and NAVICP Customer Service Division with visibility of consumer level requirements (allowances), on-hand assets, due-in quantities, and outstanding requisitions along with status at the shipboard level. With visibility of this information, Type Commanders, Battle Group Commanders and CINCs can redistribute assets to satisfy high priority requirements, thereby reducing logistics response time. These Commanders can also identify inventory deficiencies and obtain the latest status on outstanding requisitions which gives the ability to initiate expediting actions when necessary.

IIP (Industrial Interface Program)

Background. NAVSUP's Consumer-Level Material Management (CLMM) Program calls for its Fleet & Industrial Supply Centers (FISCs) to become regionally-based inventory control points (ICPs) for consumer-level inventory resources throughout the Navy. CLMM will enable FISCs to quickly deliver required on-hand material to end-use customers by locating it within regional consumer-level inventory resources and then deliver by ordering appropriate asset redistribution. Creating the capability for the FISCs Uniform Automatic Data Processing System for Stock Points (U2) to perform these tasks is the purpose of NAVSUP's Industrial Interface Programming (IIP) Project.

Discussion. The Material Access Technology (MAT) Program (part of NAVSEA's Shipyard Management Information System (SYMIS)) is used by shipyards to track requisitions and manage their material inventories. Naval Aviation Depots (NADEPs) use an automated system called NAVAIR Inventory Material Management System (NIMMS) and the Navy's Shore Intermediate Maintenance Activities (SIMAs) use their Maintenance Resource Management System (MRMS). U2 is used by the FISCs to execute all of their material management actions. To date, these several systems lack effective communication capabilities in numerous areas required to perform material management functions. IIP is required to enable the FISCs to manage material in support of NAVSUP's partnership agreements with the activities noted.

Implementation. IIP will enable the FISCs to perform their new consumer-level material management mission by establishing a U2 capability for:

- 1) tracking by manufacturer's part number and CAGE,
- 2) non-standard unit-of-issue management,
- 3) kitting preparations,
- 4) unused inventory management, and
- 5) improved technical support.

IIP will enable the FISCs to also populate their U2 Master Stock Item Record (MSIR) with regionally-required inventory. In Phase I, FISCs Pearl Harbor, Puget Sound, and Norfolk will be receiving 765,000 transactions per year from the shipyards they support. Phase II (NADEPs) and Phase III (SIMAs) will also increase the inventory management responsibilities/capabilities of the FISCs. By enabling the FISCs to perform inventory management functions for their

regional partners, IIP supports Navy-wide Infrastructure Reduction through workforce savings and inventory consolidations. IIP will be available on-line, and in real time, to responsible personnel in all partner activities. JCALS application tools, with which IIP will operate, work as real time applications that query data using the Global Data Management System (GDMS), and provide real time responses. By either adopting use of, or ensuring compatibility with GDMS, IIP will help provide complete visibility of regional Navy material inventories to all partnering activities.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

<u>IIP</u>		
<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes
ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, IIP contributes to three of the four JTAV In-Storage Retail requirements.

Based upon the above, IIP supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. Moving the Navy toward the goal of CLMM — FISCs operating as regional focal points of inventory management — requires a significant, well planned effort. NAVSUP's partnership agreements with shipyards, NADEPs, SIMAs, NASSs, PWCs, weapons stations, and other activities has redefined the mission of the FISCs in a major way. U2, their ADP program for inventory management, has required significant analysis to determine changes/additions needed to accomplish this new mission. As the automated portion of CLMM, IIP will take advantage of as much existing ADP infrastructure as possible and also minimize project risks by relying on proven technology wherever possible. This will enable a rapid deployment to all FISCs so that they may begin performing the material management function for all classes of their industrial partners.

IRISVIS (Interrogation Requirements Information System Visibility)

Background. The Interrogation Requirements Information System Visibility (IRISVIS) initiative is intended to satisfy Navy customer requisitions entering Central Point-of-Entry (CPEN) from DoD declared excess inventories held with the Defense Reutilization and Marketing System (DRMS).

Discussion. Today, Navy activities with SALTS can access the DRMS' Interrogation Requirements Information System (IRIS) to obtain asset visibility of excess material held by the various DRMOs within DRMS. However, an interactive method for requisitioning such material is not available. By using VMSIR technology and making minor changes to CPEN, interactive requisitioning of DRMS excess assets can be accommodated.

Current CPEN processes will be modified to create a Search File that will hold a customer's requisition while IRISVIS sends an Inquiry File to IRIS to search for the requisitioned NIIN within the DRMS. IRIS will return a Results File to IRISVIS. Each record in the Results File will be interrogated to determine if the requisition can be filled by a DRMO. If the requisition cannot be filled from the DRMS, IRISVIS will pass the requisition back to CPEN for further processing. Requisitions that can be filled will be written to DRMS via a standard MILSTRIP requisition from the Search File. The more important business rules associated with this initiative are:

- only Condition Code 'A' material in the DRMS will be queried;
- bill and credit bills will not be generated as a result of issues from a DRMO warehouse, i.e., material will be issued as a "free-issue" via 'BN' status; and
- Reports of Discrepancy (ROD)/Quality Deficiency Reports (QDR) will not be submitted due to the "free-issue" of material.

Implementation. IRISVIS is scheduled for implementation in Fiscal Year 1998.

Contribution to JTAV. An assessment of this initiative's contribution to JTAV In-Storage Wholesale requirements is indicated below:

IRISVIS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	No
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	Yes
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	No

As shown, IRISVIS contributes to one of the nine JTAV In-Storage Wholesale requirements.

Based upon the above, IRISVIS supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. IRISVIS, in conjunction with CPEN, will provide Navy customers the capability to interactively requisition DoD declared excess material held within the DRMS. This capability will save operating resources through “free-issue” of material, and will potentially reduce logistics response time given the alternative of requisition backorders.

ILSMIS (Industrial Logistics Supply Management Information System)

Background. The Naval Sea Systems Command in recognizing the need for improved material management established in December 1979, an ADP Supply Support Study Evaluation Team (ASSET). ASSET was to perform an analysis to determine the most feasible alternative to develop an effective supply support system for NAVSEA ordnance field activities. As a result, minimum functional requirements for an effective supply support system were developed and included in the NAVMAT study report as a viable solution to the material management problem. Accordingly, NAVSEA granted the Naval Surface Warfare Center (NSWC) Crane the authority to further document functional requirements and investigate various alternative concepts and to act as a prototype for the proposed Industrial Logistics Support Management Information System (ILSMIS). As a result, NSWC started the development of ILSMIS in July 1982 by putting major NOMIS files on-line for inquiry purposes. Various enhancements to the system since 1983 have included on-line processing for DMI and also on-line processing for the new accounts for Sponsor Owned Material, Public Works Indirect and Retained Direct Material.

Discussion. The development of ILSMIS was an additional requirement and required an upgrade to the system installed during the one time reliability upgrade. Several modules, specifically, the inquiry and receipt/issues modules were developed and implemented by NAVSURWARCEN Crane in July 1983. Other upgrades, such as the Automated Acquisition Module (AAM) subsystem were implemented in 1985. The AAM alone has a cost avoidance over 8 years of nearly \$9M. ILSMIS with continuing enhanced capability, will have an expected life cycle of between 8 to 15 years.

Contribution to JTAV. An assessment of this initiative's contribution to JTAV In-Storage Wholesale and Retail requirements is indicated below:

ILSMIS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No

ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	Yes
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, ILSMIS contributes directly to two of the nine JTAV In-Storage Wholesale requirements and one of the four JTAV In-Storage Retail requirements .

Based upon the above, ILSMIS supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Additionally, the benefits provided by ILSMIS are tremendous in achieving the goal of total supply support in that the system provides the user with the following:

- On-line interactive processing
- Back-up historical data
- Exception Management Reports
- Visibility and tracking of requisitions from cradle to grave

- Up-to-date, on-line, easy to access material data
- Remote data entry directly from user departments rather than through batch data processing
- Elimination of multiple inputs into different systems; a single transaction will update all applicable data base elements
- Automated document preparation will eliminate manual preparation
- Automated cross referencing, particularly as applied to material delivery, negates the need for manual research
- Improved visibility of supply material inventory

Summary. ILSMIS is an asset visibility system that provides to the users complete material management that takes into account on-line processing, cataloging, and purchasing, with a repairable function that tracks repairable items from receipt of funding document to completion. These processes, including the enhancements that have been made to ILSMIS over the years, have given the users an effective and cost saving supply support system.

ISV-R (interservice Visibility and Redistribution)

Background. The Primary Inventory Control Activity/Secondary Inventory Control Activity (ISV-R) initiative is designed to permit Navy, as PICA, to have visibility of other Services, as SICA, repairable assets. The ISV-R initiative also will permit other Services, as PICAs, to have visibility of Navy, as SICA, repairable assets.

Discussion. The requirements associated with the ISV-R program were part of the Defense Integrated Material Management/Nonconsumable Item Program (DIMM/NIP) initiated by DoD in the 1970s. The objective of DIMM/NIP was to eliminate duplicate wholesale inventory management of nonconsumable inventories. The DIMM/NIP consisted of two phases. During Phase I, every National Stock Number (NSN) under Defense Logistics Support Center (DLSC) management was assigned a PICA. The PICA was responsible for appropriate cataloging of the NSN during the initial provisioning process. Phase II required the PICA to prepare technical review packages which addressed procurement, repair, packaging specifications, and a certificate of usability. These technical review packages were sent to the SICAs for review and concurrence. Based upon the level of SICA concurrence, Nonconsumable Item Management Support Codes (NIMSCs) were assigned. The NIMSCs assigned indicated the degree of material support which would be obtained by the SICA from the PICA. For example, NIMSC 2 was assigned to a repairable where the SICA could not use repaired items assigned to another Service with PICA responsibilities because of different form, fit or function.

Repairables assigned NIMSC 5 were items used by one or more SICA under one PICA. These are the items that Navy is currently focusing their ISV-R efforts. For NIMSC 5 repairables, the PICA manages the entire wholesale system inventory level, unserviceable SICA assets are returned for credit, and SICA repairable requirements are submitted to the PICA on funded requisitions. Further, the PICA would have visibility and accessibility of the SICAs' wholesale and retail items.

The Navy's ISV-R initiative relating to NIMSC 5 repairables is being accomplished in two segments. The first segment relates to a one-time clean-up of approximately \$500M of repairables which will be moved to either the Service acting as the PICA or to disposal if the PICA does not require the asset. The second segment relates to software development and implementation for execution of ISV-R requirements and consists of two phases. Phase I includes development and implementation of the software required for the NAVICP to act as the PICA for repairables which the Army and Marines use as SICAs. Phase II includes

development and implementation of the software required for NAVICP to act as the SICA for repairables when the other Services are the PICA.

Implementation. The one-time \$500M clean-up segment is scheduled for completion in FY 1997. Phase I of the software development and implementation for NAVICP to be the PICA where Army and Marines are users as the SICAs was implemented in January 1997. Phase II, however, is in the “requirements definition” stage for long-term solution. An interim solution is being worked by the Joint Total Asset Visibility (JTAV) Office to meet the DoD requirement for implementation by the end of FY 1997.

Contribution to JTAV. An assessment of this initiative’s contribution to JTAV In-Storage Wholesale requirements is indicated below:

ISV-R

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	Yes
ISW-3	SICA ICP Requires Visibility of PICA Assets	Yes
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	No

As shown above, ISV-R contributes directly to three of the nine JTAV In-Storage Wholesale requirements.

Based upon the above, ISV-R supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information

- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. Complete implementation of ISV-R will permit the PICAs to manage wholesale system repairable inventories and to redistribute SICA assets to satisfy high priority requirements thereby reducing logistics response time and inventory investment levels.

JCALS Prototype (Joint Computer-aided Acquisition and Logistics Support)

Background. Historically, our efforts in designing Navy Total Asset Visibility (NAVTA V) systems have been fragmented in terms of a single system architecture. In replicating files and using different architectures, the Navy has made progress but missed a long term view and structure in step with emerging technologies and other data architecture undertakings in DOD. We recognized a need to link our disparate data bases to allow a common look at our data and use it in common ways. Our choice for this systems integration effort is the Joint Computer-aided Acquisition and Logistic Support (JCALS) toolset. The implementation of the JCALS infrastructure tools for the NTAV SOM effort will provide a very favorable benefit-investment ratio. This is based upon the completion of the design, development and initial fielding, which has already been funded by the JCALS technical manual program and Defense Information Infrastructure deployments of JCALS capability by the Navy. The incremental cost to incorporate additional applications and capability, as well as non-recurring sustainment costs, are estimated to be much smaller than proceeding with a new development or procurement and systems integration effort. Leveraging this effort against the access to over \$700M worth of assets at the two pilot sites should result in significant financial payback.

Discussion. JCALS, a DII COE compliant and proven system, allows a user to sign on through an approved security system, and then apply a set of business rules to the data mapping system, Global Data Management System (GDMS), which accesses data from a variety of data bases and structures. Conceptually, this allows for a single accountable record and one touch supply without requiring major re-engineering or design of the many Total Asset Visibility (TAV) legacy systems.

To test this concept, the Navy has embarked on a pilot program to link data bases at Naval Surface Warfare Center (NSWC) Crane and Naval Undersea Warfare Center (NUWC) Newport using the JCALS security solution, and then applying the functional business rules to gain visibility and access to NAVSEA SOM (Sponsor Owned Material) inventories.

Implementation. We have approached the prototype using a two-phased scenario. The first phase will achieve visibility of the assets by March 1998. The second phase will apply business rules to the process to access inventory for requisition referrals and wholesale procurement offsets by June 1998.

Contribution to JTAV. When the prototype is successfully deployed, our plan is to expand the system to other target sites holding NAVSEA, NAVAIR and SPAWAR inventories. As the Navy integrates all residual assets into common business practices and systems, the uplink to JTAV and other DOD systems will be streamlined. Reutilization of excess inventories of all service requirements is the goal.

An assessment of this initiative's contribution to JTAV In-Storage Wholesale and Retail requirements is indicated below:

JCALS Prototype

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	Yes
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, the JCALS prototype contributes directly to two of the nine JTAV In-Storage Wholesale requirements and one of the four JTAV In-Storage Retail requirements .

Based upon the above, JCALS prototype supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information

- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. The JCALS SOM prototype is an aggressive plan that acknowledges the need to link and use information in our many data bases using state of the art technology. This capability when fully tested and deployed will be the cornerstone of Navy total asset visibility.

MFCS Retail (Material Financial Control System)

Background. In August 1996, the Material Financial Control System (MFCS)-Retail was implemented on the USNS CONCORD (T-AFS 5) as a Proof of Concept test. MFCS-Retail is an inventory financial accounting system similar to that used by NAVICP referred to as PX-06. MFCS-Retail employs DoD's Standard General Ledger (SGL) accounting practices, and was designed to replace the legacy SAC-207 stores accounting system.

Discussion. The major objective of MFCS-Retail is to move inventory financial accounting functions ashore which will permit sailors to concentrate on inventory functions, i.e., order, receive, stow, issue and adjust. This objective was achieved through the use of the TIR Wheel Expansion initiative which converted the CONCORD to a TIR reporter. As such, they send daily transactions to NAVICP-M and NAVICP-P for those line items managed by NAVICP, such as 1H, 7H, 1R and 7R, giving NAVICP daily asset visibility of these afloat retail assets. Moreover, a separate data base was established at NAVICP-M for receiving daily TIRs for Navy-owned DLA retail inventories (Budget Project 28), thus providing the Retail Manager of BP 28 NWCF resources with daily transactions of Navy-owned DLA retail inventories. As briefed to the Fleet Supply Policy Council on 17 October 1996, the CONCORD had transmitted 4,029 TIRs from implementation through 8 October 1996 with zero errors, indicating the Proof of Concept test is operating very successfully.

Implementation. Because of the success of the USNS CONCORD Proof of Concept test, Navy currently plans to implement MFCS on the remaining Military Sealift Command's SAC-207 ships, as well as the Navy's SAC-224 ships. Navy also plans to implement MFCS, in conjunction with Relational Supply (discussed elsewhere in this Section), at Navy SAC-207 aviation units during FY 1998 and beyond. The aviation prototype will be the USS EISENHOWER (CVN 69) scheduled for implementation in FY 1998. Finally, it is possible that all end-use inventories on smaller combatants, e.g., DDGs, could be capitalized into DBOF in the not too distant future if desired by the Fleet Commanders. If accomplished, Relational Supply and MFCS-Retail could also be implemented on these ships. Thus, the Navy would have total asset visibility of all afloat inventories which is estimated to be over five billion dollars which it currently does not have on a real time basis.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

MFCS-Retail

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, MFCS-Retail contributes directly to only one of the four JTAV In-Storage Retail requirements. However, the importance of the MFCS-Retail initiative is in its expansion opportunities. Other initiatives, e.g., NALISS, PC34 Retrieval System/SNAPshot, SALTS, will satisfy other JTAV In-Storage Retail requirements within an expanded universe of assets. Additionally, MFCS-Retail contributes to one of the four In-Storage In-Use requirements, as shown below.

MFCS-Retail

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISI-1	ICP Requires Visibility of In-Use Assets	Yes
ISI-2	Headquarters Requires Visibility of In-Use Assets	No
ISI-3	CINCs and JTF Commanders Require Visibility of In-Use Assets	No
ISI-4	Weapon System Managers Require Visibility of In-Use Assets	No

Based upon the above, MFCS-Retail supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Standardize Afloat Tools and Practices
- Move Afloat Workload Ashore
- Implement Best Value Products and Services

Summary. When MFCS-Retail is ultimately implemented on SAC-207, SAC-224 and aboard smaller combatants, the Navy will have real-time asset visibility of five billion dollars of inventory which it currently does not have. This enhanced visibility will permit the NAVICP to redistribute material from these consumer levels to satisfy high priority requirements, thereby reducing logistics response time. It will also permit application of excess consumer level assets to wholesale procurement and/or repair requirements, thereby reducing inventory investment as well as fulfilling the objective of moving workload from afloat units to activities ashore.

MODIS (Military Origin Destination Information System)

Background. The U.S. Postal Service and the Military Postal Service Agency developed the Military Origin Destination Information System (MODIS) to replace an outdated manual “stubby pencil” transit time measurement system with an automated and more efficient system. MODIS automates mail transit time measurement through the use of barcoded flight tags and laser scanners. The barcoded labels are attached to each piece of mail closed out for dispatch. As the mail transits the pipeline, it is scanned by postal clerks at overseas postal activities and aboard ships. USPS collects the scanned data from the postal activities, and develops a transit time report every eight weeks.

By incorporating a mail tracking database at Streamlined Automated Logistic Transmission System (SALTS) Central, origin mail data records in the database are updated with each scan received at SALTS. Mail Intransit Visibility is achieved by providing a daily Dispatch Report to each participating activity listing mail intransit, and any updated locations from intermediate node scans.

Discussion. As letter trays, First Class and Priority pouches, and large Priority parcels are closed out for dispatch at USPS CONUS Air Mail Centers, a barcoded label is created and applied to the mail. With the creation of the label, a MODIS Origin “A” record of mail data is created in a USPS database. Every day, USPS sends MODIS Origin “A” records representing individual pieces of mail closed out to SALTS Central. SALTS Central stages the “A” Records in a database for tracking and updates. The mail is then flown overseas, and barcoded labels attached to the mail are scanned at intermediate nodes and end destination locations by Army, Air Force, and Navy postal clerks. Scanned mail data files are transmitted to SALTS Central at Naval Inventory Control Point (NAVICP) Philadelphia, PA, where they are applied to the mail tracking database, and copied and forwarded to the U.S. Postal Service for transit time report generation.

The SALTS Mail Tracking database provides daily Dispatch Reports to participating postal activities and fleet units. The Dispatch Report lists mail intransit for an activity or unit, and provides last location and date scanned at intermediate nodes. When mail is delivered to the end destination, a “Delivered” update is given, after which the mail data purges from the report.

Additional benefits of ITV are the capability to identify and correct instances of misrouted mail, inefficient routing, bottlenecks, and trends of poor performance by commercial airlines. This results in immediate efforts to correct problems, which may not be discovered for weeks or even months without this system. Specifically Intransit Visibility will identify:

- a. When a MODIS site has the wrong zip code or date entered in the MODIS handheld computer. The result of incorrect set up in the MODIS equipment is skewed data that is either thrown out, or is misrepresented on reports.
- b. When a MODIS site sends a scan file to SALTS. Postal managers can determine which sites are and are not transmitting scan files to SALTS as required.
- c. When mail is received out of sequence. There are instances when mail is backlogged, and the oldest mail is not moved in it's proper sequence. This can be seen on the Dispatch Reports by comparing origin dates and scan dates.

d. When manual entries of the barcodes are necessary because a label printer at an Air Mail Center is not printing the barcode dark or consistent enough for the laser scanner to read.

e. When a routing change implemented by the Joint Military Postal Activity (JMPA) is inefficient, which results in an increase in the average transit time.

f. When mail is missent. The daily Dispatch Report reflects scans by a postal activity not in the correct routing.

g. When an airline who has been tendered mail, is not moving it within the prescribed time frames.

Implementation. MODIS is implemented at all postal sites in Europe and Southwest Asia. CINCLANTFLT and CINCPACFLT postal activities will be implemented by June 1998. Deploying Battle Groups will be implemented before deployment, and deactivated upon return to homeport.

Summary. Navy Mail Intransit Visibility, through use of the MODIS system, will allow Commanders of fleet units to track mail as it is transiting the mail pipeline. The only current visibility of mail is through Mail On Hand messages provided each day by the Fleet Mail Centers. This does not provide total visibility, does not measure transit time, and is not real time. As Navy Mail Intransit Visibility becomes fully implemented, other transit time reports will be researched in order to provide more automation in this area. In addition, a DOD application can likely develop when other services see the benefits of this system.

PC34/SNAPSHOT

Background. Another system that has existed for some time that permits customers to access NAVICP-M and NAVICP-P data base files is the PC34 Retrieval System (formerly known as the A02 Retrievals).

Discussion. The PC34 Retrieval System permits a customer, who is a registered user and has a password assigned, to access NAVICP's Master Information File (MIF), Weapon Systems File (WSF), Technical Reference File (TRF), and Contract Status and Due-In/Due-Out Files. There are 36 different types of retrievals possible; examples of such retrievals are shown below:

- Asset Status*
- Part Number Cross-Reference
- Application Data/Reference Data*
- Change Notice Data
- Backorder Data*
- Planned Program Requirements (PPR) Data*
- Due-In/Due-Out Data*
- Requisition Status

SNAPshot is an information system which consolidates the five most commonly used PC34 retrieval programs and integrates the data into a menu-driven system. The five programs are identified above by an asterisk (*). SNAPshot extracts and summarizes data from the NAVICP's files for one NIIN at a time, and displays it on several screens in a variety of formats. SNAPshot inquiries can also be made through SALTS in a batch mode for up to ten NIINs. SNAPshot also now includes Item Manager Notes which can provide valuable information to customers who would probably call to obtain the same information.

Implementation. The PC34 Retrieval System/SNAPshot were implemented in the late 1980s.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Wholesale requirements is provided below:

PC34 Retrieval System/SNAPshot

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	Yes
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	Yes
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	Yes
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	Yes
ISW-9	Logisticians Require Visibility of Wholesale Assets	Yes

As shown above, the PC34 Retrieval System/SNAPshot contributes to six of the nine JTAV In-Storage Wholesale requirements. The PC34 Retrieval System/SNAPshot also contributes to five of the seven JTAV In-Process Procurement requirements, assuming either user registration of the system or access to SALTS, as shown below.

PC34 Retrieval System/SNAPshot

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
IPP-1	ICP Requires Visibility of Procurement Assets	No
IPP-2	Headquarters Require Visibility of Procurement Assets	Yes
IPP-3	CINCs Require Visibility of Due-In Assets	Yes
IPP-4	Weapons Managers Require Visibility of Due-In Assets	Yes
IPP-5	Retail Managers Require Visibility of Wholesale Due-Ins	Yes
IPP-6	IMA/Depot Maintainers Require Visibility of Wholesale Due-Ins	Yes
IPP-7	ICP Requires Visibility of Material Stored at Commercial Firms	No

Similarly, the PC34 Retrieval System/SNAPshot contributes to nine of the ten JTAV In-Process Repair requirements (i.e., those assets in Condition Code 'M') assuming either user registration of the system or access to SALTS or the DLA LINK system.

PC34 Retrieval System/SNAPshot

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
IPR-1	OSD Requires Visibility of In-Repair Assets	Yes
IPR-2	Joint Staff Requires Visibility of In-Repair Assets	Yes
IPR-3	Headquarters Requires Aggregate Visibility of In-Repair Assets	Yes
IPR-4	ICP Requires Visibility of In-Repair Assets at Depot and IMA	No
IPR-5	Weapons Managers Require Visibility of In-Repair Assets	Yes
IPR-6	Major Commands Require Visibility of In-Repair Assets	Yes
IPR-7	CINCs Require Visibility of In-Repair Assets	Yes
IPR-8	JTF Commanders Require Visibility of In-Repair Assets	Yes
IPR-9	Maintenance Managers Require Visibility of In-Repair Assets	Yes
IPR-10	Retail Managers Require Visibility of Due-Outs from Repair	Yes

Finally, the PC34 Retrieval System/SNAPshot contributes to four of the six JTAV Requisition Tracking requirements, as shown below:

PC34 Retrieval System/SNAPshot

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
TR-1	End Users Require ITV of Quantities/Expected Delivery Dates	No
TR-2	Retail Managers Require Visibility of Outstanding Requisitions	Yes
TR-3	Headquarters Require ITV of Quantities/Expected Delivery Dates	No
TR-4	CINCs/JTF Staffs Require Visibility of Outstanding Requisitions	Yes
TR-5	IMA/Depot Maintainers Require Visibility of On-Order for Repair	Yes
TR-6	Logistics Managers Require Capability to Track Requisitions	Yes

Based upon the above, this initiative supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. The PC34 Retrieval System and SNAPshot are information systems which permit end-users, retail managers, maintenance managers, weapons managers, logistics managers and CINC/JTF staffs to obtain various types of logistics data from NAVICP-M and NAVICP-P data files. These files include the Master Information File (MIF), Weapon System File (WSF), Technical Reference File (TRF) and Contract Status and Due-In/Due-Out Files. Access to these NAVICP data file information enhances the logistics decision-making process throughout the Navy.

PVIS (Part Number Visibility)

Background. The Part Number Visibility (PVIS) initiative is intended to expand regional visibility to Fleet Industrial Supply Centers (FISCs) industrial partners and to provide total asset visibility of “part numbered” assets.

Discussion. Navy industrial activities, e.g., Naval Aviation Depots (NADEPs) and Naval Shipyards (NSYs) are supported by the FISCs and utilize a significant amount of non-standard items in their daily operations. Non-standard items refer to those items that have not been catalogued and assigned a National Stock Number (NSN). These non-standard items are typically assigned local stock numbers (identified by LL in positions 1-2 of the NIIN).

Under this initiative, the FISC, using UADPS-2, will assume all inventory management responsibility for all non-standard (local stock numbers) items in support of regional industrial activities. Regional asset visibility will be made available to the industrial users for inventories no longer maintained in the industrial system. If an industrial activity is a FISC partner, all assets at the FISC will be visible and made available. If the industrial activity is a non-partner of the FISC, only those assets above the “operating level protection computation” will be visible and made available.

PVIS will be implemented in a phased manner. Phase I will provide an “inquiry” capability only, so that regional asset visibility will be made available to the industrial user via on-line or batch inquiry into VMSIR via PVIS. PVIS will establish a non-standard cross reference file by Part Number/Cage Code matched to a local/standard NSN to include non-standard unit of issue as required by the industrial customer. Phase II will provide on-line and batch capability for processing requisitions and issues. Phase III will permit Change Notice processing and updating of the non-standard cross reference file; provide Site Demand Record (SDR) balances along with UADPS-2 MSIR balances; and provide industrial users the capability to perform inquiries by “item description”. Phase IV will permit VMSIR to link the unit of issue via the non-standard cross-reference file.

Implementation. PVIS is expected to be fully implemented in all FISC Regions in FY 1998.

Contribution to JTAV Requirements. An assessment of this initiative’s contribution to the JTAV In-Storage Retail requirements is provided below:

PVIS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	No
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, PVIS contributes directly to one of the four JTAV In-Storage Retail requirements and this is in the context of Depot Maintenance only.

Based upon the above, PVIS supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. When fully implemented, PVIS will provide for centralized inventory management of non-standard consumer-level inventories previously managed by industrial activities within the designated Regions. This centralization will permit achievement of supply effectiveness goals by providing asset visibility throughout the Region while minimizing inventory investment, as well as “singling up” material management ADP systems into one system, UADPS-2.

RAM (Residual Asset Management)

Background. Prior to 1995, COMNAVSURFLANT retained end-use inventories that were excess to the Coordinated Shipboard Allowance List (COSAL) on SURFLANT ships for potential redistribution within the Type Command. This local system was referred to as the Consolidated Residual Asset Management Screening Information (CRAMSI) system.

Discussion. In late 1994, Navy decided to codify CRAMSI and commenced efforts to develop the Residual Asset Management (RAM) system for national and overseas implementation. Of the twenty business rules developed for RAM, the following are the most pertinent:

- RAM would be operated on UADPS-2 software applications at NAVICP-Mechanicsburg with RAM sites operating as remote U2 warehouses.
- RAM assets would only consist of Ready-for-Issue (RFI) condition coded items and NWCF cognizance items, i.e., no APA items.
- RAM assets would be screened first, through the use of VMSIR and CPEN, prior to the user requisition going to either the retail or wholesale system.
- RAM screening would be limited to Fleet and the Naval Sea System Command's Technical Operation Budget (TOB) requisitions.
- Demand would be recorded at the NAVICP for all RAM issues; backorders would not be established.
- NAVICP would screen RAM assets monthly for satisfying backorders or precluding procurement/repair actions.
- Inventories would be excessed to DRMO after 12 months if a particular RAM asset had no issue activity.

Implementation. RAM was implemented on the East Coast at St. Julians Creek in 1995. In its first eight months of operation, over 5,000 Fleet requisitions were satisfied from RAM inventories creating a cost avoidance of \$13.3 million for the Type Commanders. Since then, RAM has been implemented at Pearl Harbor, San Diego, Jacksonville, Norfolk, Puget Sound and Yokosuka. NAVICP automated screening of RAM assets has also been established.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

RAM

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

While the above assessment reveals a contribution to only one of the JTAV In Storage Retail requirements, it has, more importantly, accommodated the objective of intra-service lateral redistribution of consumer-owned inventories. Thus, RAM supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Reengineer Inventory, Retention & Positioning Strategies
- Implement Best Value Products and Services

Summary. RAM implementation, in conjunction with CPEN and VMSIR, permits the Navy to execute intra-service lateral redistributions of consumer-owned, excess inventories to satisfy Fleet customers, thereby achieving cost avoidance of scarce operating resources and reducing logistics response time.

RHMMSVIS (Regional Hazardous Material Management System/Central Point of Entry Visibility)

Background. The Regional Hazardous Material Management System (RHMMS)/Central Point of Entry (CPEN) Interface initiative is intended to capitalize on the visibility benefits derived from CPEN/VMSIR.

Discussion. RHMMS was designed to minimize the procurement, use and disposal of hazardous material. It provides hazardous material visibility within a specific Region and provides the capability to process requisitions for hazardous material by referral to other storage sites within the same Region. The RHMMS Demand Processing Module consists of two sub-modules. The first sub-module exists on the TANDEM mainframe and permits RHMMS to send and receive requisitions to and from UADPS, as well as sending status to UADPS when RHMMS makes an issue of hazardous material. The second sub-module exists on a regional file server and permits multiple users within the region to process requisitions via a Local Area Network (LAN) or modem.

CPEN was prototyped in 1995 and implemented Fleet-wide in 1996. CPEN is a “front-end” intelligent router of Fleet requisitions (Service Code R and V) which uses VMSIR technology to refer these requisitions to the most cost-effective point of issue. VMSIR allows requisitions to be referred to UADPS activities, as well as non-UADPS activities, through its established interfaces with other systems/databases. During the development of CPEN, however, it was discovered that RHMMS would lose visibility of many requisitions for hazardous material once CPEN was implemented. In particular, shipboard outfitting requisitions citing the Naval Sea Systems Command (NAVSEASYS COM) Technical Operating Budget (TOB) fund codes for hazardous material would be “lost” from RHMMS. Therefore, Navy decided that a RHMMS/CPEN interface should be established to provide asset visibility and to utilize the efficient CPEN/VMSIR requisition processing capabilities.

In order to accomplish this initiative, CPEN will have to be modified in two ways. First, it will have to accept all Navy requisitions including those from ashore activities whose requisitions cite Service Code N. Second, the CPEN validation program will have to be modified to reference appropriate files to determine if the requisition is for hazardous material. If requisitions are for non-hazardous material, the requisitions will be routed under current CPEN logic. If requisitions are for hazardous material, the requisitions will be written to a file which

will be transferred to RHMMS. For requisitions either filled or partially filled, RHMMS will send status to UADPS. Unfilled or partially filled requisitions will be transmitted by RHMMS back to CPEN for issue from another site.

Implementation. The RHMMS/CPEN Interface initiative is scheduled for implementation in FY 1998.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

RHMMS/CPEN Interface

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes
ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	Yes

As shown above, RHMMS/CPEN Interface contributes to all four JTAV In-Storage Retail requirements. This assessment is based upon the fact that any activity, including ships, can access VMSIR asset information through SALTS and the Logistics Information Network (LINK).

Based upon the above, RHMMS/CPEN Interface supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider

- Implement Best Value Products and Services

Summary. Implementation of the RHMMS/CPEN Interface will provide Navy increased asset visibility of hazardous material and the capability to draw down excess hazardous inventories in a given Region thereby reducing inventory investment.

RDO/RFI (Redistribution Order/Ready for Issue)

Background. The Redistribution Order/Ready-for-Issue (RDO/RFI) initiative relates to the tracking of repairables flowing to and from commercial repair activities.

Discussion. Currently, NAVICP-P and NAVICP-M use the Commercial Asset Visibility (CAV) system, described earlier in this Section, to obtain visibility of repairable assets undergoing repair at most commercial repair depots. While this system provides on-hand balances of repairable assets as received and shipped from these commercial repair depots which have implemented CAV, it does not provide in-transit visibility of assets flowing to and from these activities. For those commercial repair depots that have not implemented CAV, asset information is provided the NAVICP by manual methods and, of course, there is no in-transit visibility.

NAVICP has reported significant losses of assets repaired at CAV and non-CAV commercial repair depots as a result of the lack of an automated tracking system. Accountability at CAV sites is dependent upon the integrity of the commercial contractor to correctly report repairable transactions. Verification of record accuracy is by manual inspection and NAVICP record comparison. Non-CAV sites report asset information manually in memo format to the NAVICP with little or no validation available. NAVICP does not have, for CAV or Non-CAV sites, proof of shipment (POS), proof of delivery (POD), shipment and receipt dates, or accountable names/signatures for shipments to and from these commercial repair depots.

The RDO/RFI initiative will provide accountability, visibility and control of repairable assets shipped from wholesale storage sites to commercial repair depots and, after repair, shipped from the repair sites back to the wholesale storage sites (or to end-use customers). Specifically, the RDO segment of this initiative will commence when the NAVICP directs a wholesale storage site, typically a Designated Support Point (DSP), through a Redistribution Order (RDO) to transship a NRFI DLR to the commercial DOP for induction into the repair cycle. ATAC will be notified of this transaction and will establish a RDO record within the ATAC database. The Naval Transportation Support Center (NAVTRANS) will direct the transportation carrier to pick-up the NRFI DLR at the wholesale storage site and deliver the NRFI DLR to the directed DOP. The transportation carrier will transmit pick-up and delivery information to the ATAC database for updating the RDO record. ATAC will then transmit the appropriate transactions to the NAVICP upon receipt of the delivery information from the carrier. Conversely, the RFI

segment of this initiative will commence when the commercial DOP has repaired the DLR to RFI condition and is ready to return the RFI DLR to the wholesale storage site. The commercial DOP will request NAVTRANS for pick-up and transshipment. NAVTRANS will provide ATAC with information on the pick-up and transshipment which ATAC will use to establish an RFI record in the ATAC database. When the commercial carrier moves the RFI DLR from the commercial DOP to the wholesale storage site, the carrier will provide ATAC with Proof of Receipt/Proof of Delivery (POS/POD) information for updating the ATAC database which, in turn, will be used for TIRing the appropriate data to NAVICP.

Implementation. RDO/RFI is currently scheduled for implementation in FY 1998.

Contribution to JTAV Requirements. RDO/RFI contributes to one of the eight JTAV In-Transit requirements, as shown below:

RDO/RFI

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ITV-1	DoD Requires Visibility of Personnel to/from OCONUS	No
ITV-2	ICP/Transporters/Receivers Require Detailed 'Content' Data	Yes
ITV-3	Transporters Require Shipment Location Visibility	No
ITV-4	Supply/Maintainers/Theater Commanders Require ITV	No
ITV-5	Theater Commanders/Logistics Planners/Shippers Require ITV	No
ITV-6	DoD Managers Require ITV from Origin to Destination	No
ITV-7	DoD requires ITV Capability to Transition from Peace to War	No
ITV-8	Logistics/Transporters/ Theater Require ITV Linkages	No

Based upon the above, RDO/RFI supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. RDO/RDI is an initiative which will establish accountability, in-transit visibility, and control of repairable assets moving from wholesale storage sites to commercial repair facilities; and, after repair to RFI condition, from commercial repair facilities to wholesale storage sites. Through RDO/RFI, NAVICP will have total visibility of these assets during their in-transit time which could potentially be used to offset DLR procurements.

ROMIS-VIS (Real Time Outfitting Management Information System - Visibility)

Background. The Real Time Outfitting Management Information System (ROMIS)/Virtual Master Stock Item Record (VMSIR) Interface System (ROMISVIS) initiative is intended to increase asset visibility of material located at various private and public activities constructing, repairing, overhauling or altering Navy ships.

Discussion. The ROMIS Material Management System (MMS) was designed exclusively for managing Government Furnished and Contractor Furnished Material (GFM/CFM) in support of Navy ships. ROMIS MMS creates requisitions, receives status, and flags potential problems with materials being delivered through the supply system to activities supporting the Navy's ship maintenance program. These activities include Naval Shipyards (NSYs), In-Service Engineering Activities (ISEAs), Supervisor of Shipbuilding (SUPSHIPS) and Private Shipyards. As with other activities within the Supply System, excess material inventories have accumulated at these maintenance support activities over the years.

Because ROMIS does not interface with the Uniform Automated Data Processing System (UADPS-2) which is currently used by the Fleet Industrial Supply Centers (FISCs), ROMIS managers can only interface with ICP inventory managers regarding the disposition of excess material. Since credit or partial credit for returned excesses have not been typically generated, the excess material at these activities have continued to grow. Equally important, excesses at one activity could possibly be used to satisfy a requirement at another activity, but the lack of asset visibility of these ROMIS assets precludes such redistribution from occurring.

As described previously in this Section, VMSIR was developed to provide asset visibility and automatic referral processing between UADPS-2 activities for Navy-owned DLA retail inventories. Because of VMSIR's success, it has been expanded to interface with other supply systems, such as Residual Asset Management (RAM) and DLA's SAMMS. Consequently, the objective of the ROMISVIS initiative is to develop the requisite interfaces between ROMIS and VMSIR which will provide asset visibility of ROMIS excess inventories to all ROMIS/VMSIR activities, as well as non-ROMIS/VMSIR activities. The initiative is planned in two phases. Phase I encompasses uploading the ROMIS database file into a Host-TANDEM in a flat file format, providing inquiry capabilities to ROMIS activities, and allowing non-ROMIS activities

access to TANDEM ROMIS files. Phase II will be the implementation of an automatic referral capability to and from ROMIS activities.

Implementation. ROMISVIS is scheduled for completion in FY 1998.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

ROMISVIS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	No
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

As shown above, ROMISVIS contributes directly to one of the four JTAV In-Storage Retail requirements and this is in the context of Depot Maintenance only.

Based upon the above, ROMISVIS supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. When both phases of ROMISVIS are implemented, the capability will exist for ROMIS/VMSIR activities to redistribute material among themselves, as well as non-ROMIS/VMSIR and ROMIS/VMSIR activities to redistribute material. This enhanced asset visibility will have two benefits. One, logistics response time will be reduced by virtue of these redistribution actions. Two, excess inventories at these maintenance support activities will be reduced.

SALTS (Streamlined Automated Logistics Transmission System)

Background. The Streamlined Automated Logistics Transmission System (SALTS) is a value added communication channel for logistics traffic which has the capability of operating outside of the regular DoD communications systems. It was conceived and put into service during Operation Desert Shield/Storm. The system was designed to allow customers to submit requisitions, receive status, and communicate non-tactical information requests. It has since evolved into a system which communicates with computer systems world-wide.

Discussion. SALTS is a PC-based store-and-forward system, centrally located at the NAVICP-Philadelphia. It provides bi-directional transfer of data between customers and connected shore based computer systems or networks. It accomplishes this using a PC, modem or Internet connection, and the SALTS Client Software. SALTS Central at NAVICP-P is the hub of the system.

All file-processing is done off-line at the customer's SALTS terminal (a PC with the SALTS Client Software loaded on it). When the customer finishes the file-processing, the send/receive function is initiated. The SALTS Client Software then takes over the process by dialing SALTS Central, logging the customer on to the system, uploading outgoing information, downloading incoming information, and automatically installing any programs upgrades. The SALTS Central Operating System then unpacks the information that the customer uploaded, reads the header for addressing information, re-addresses it, and forwards the information to the appropriate destination. This could be another SALTS customer, an Internet e-mail user, DAAS, DLA or any number of other destinations.

SALTS forwards MILSTRIP requisitions, and acts as a communications switch to forward MILSTRIP documents received from Fleet units to DAAS for routing to the supply system. SALTS also receives status collected by DAAS and downloads that data to the unit the next time the unit dials into the system. SALTS provides the same service for payroll and personnel data. Currently, SALTS provides the following services related to TAV:

- Requisition Submission and Status data
- SNAPshot, VMSIR, ATAV(Army TAV) and DLA LINK data
- AV-3M Maintenance Data submission
- CAIMS/FOSAMS data

- Parts Life Tracking System (PLTS) data
- Repairable Carcass Tracking data

Users can also access SALTS to enter DLA LINK which provides further access to a number of different data bases containing logistics information, e.g., Defense Automatic Addressing System Center (DAASC) Inquiry System; Defense Reutilization and Marketing Office's Interrogation Requirements Information System (IRIS); DLA's SAMMS and LIPS; and Military Traffic Management Command's (MTMC) Worldwide Port System (WPS).

Implementation. SALTS was implemented in 1991.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Wholesale and Retail requirements is provided below:

<u>SALTS</u>		
<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	No
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	Yes
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	Yes
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	Yes
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	Yes
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	Yes
ISW-9	Logisticians Require Visibility of Wholesale Assets	Yes
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes
ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	Yes

As shown above, SALTS contributes to six of the nine JTAV In-Storage Wholesale and all four In-Storage Retail requirements. In addition, SALTS contributes to five of the seven JTAV In-Process Procurement and nine of the ten In-Process Repair requirements, as shown below:

SALTS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
IPP-1	ICP Requires Visibility of Procurement Assets	No
IPP-2	Headquarters Require Visibility of Procurement Assets	Yes
IPP-3	CINCs Require Visibility of Due-In Assets	Yes
IPP-4	Weapons Managers Require Visibility of Due-In Assets	Yes
IPP-5	Retail Managers Require Visibility of Wholesale Due-Ins	Yes
IPP-6	IMA/Depot Maintainers Require Visibility of Wholesale Due-Ins	Yes
IPP-7	ICP Requires Visibility of Material Stored at Commercial Firms	No
IPR-1	OSD Requires Visibility of In-Repair Assets	Yes
IPR-2	Joint Staff Requires Visibility of In-Repair Assets	Yes
IPR-3	Headquarters Requires Aggregate Visibility of In-Repair Assets	Yes
IPR-4	ICP Requires Visibility of In-Repair Assets at Depot and IMA	No
IPR-5	Weapons Managers Require Visibility of In-Repair Assets	Yes
IPR-6	Major Commands Require Visibility of In-Repair Assets	Yes
IPR-7	CINCs Require Visibility of In-Repair Assets	Yes
IPR-8	JTF Commanders Require Visibility of In-Repair Assets	Yes
IPR-9	Maintenance Managers Require Visibility of In-Repair Assets	Yes
IPR-10	Retail Managers Require Visibility of Due-Outs from Repair	Yes

Finally, SALTS also contributes to four of the six JTAV Requisition Tracking requirements, as shown on the next page.

SALTS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
TR-1	End Users Require ITV of Quantities/Expected Delivery Dates	No
TR-2	Retail Managers Require Visibility of Outstanding Requisitions	Yes
TR-3	Headquarters Require ITV of Quantities/Expected Delivery Dates	No
TR-4	CINCs/JTF Staffs Require Visibility of Outstanding Requisitions	Yes
TR-5	IMA/Depot Maintainers Require Visibility of On-Order for Repair	Yes
TR-6	Logistics Managers Require Capability to Track Requisitions	Yes

Based upon the above, SALTS supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. SALTS is a value added communication channel for logistics traffic. While originally designed to allow customers to submit requisitions and receive status, SALTS has now evolved into a system which communicates with numerous computer systems world-wide. By using SALTS, end-users, wholesale managers, retail managers, maintenance managers, weapons managers, logistics managers and CINC/JTF staffs can communicate via email and/or obtain a wealth of logistics information, to include asset visibility, from numerous databases within DoD which enhances logistics decision-making throughout DoD. Connection to USTRANSCOM's GTN for ITV data is expected in the near future.

TIR (Transaction Item Reporting) Wheel

Background. The Uniform Inventory Control Point (UICP) data processing system is used by the Naval Inventory Control Point (NAVICP) in the management of wholesale repairable and consumable inventories. Prior to the implementation of the current IBM hardware, the UICP software applications operated on UNIVAC 494. The latter employed a System Constant Area (SCA) Table to identify activities that could Transaction Item Report (TIR) daily transactions of wholesale inventories to the NAVICP. The SCA Table was limited to 45 activities and most application programs were “hard-coded” to those 45 activities. This SCA Table was commonly referred to as the TIR Wheel.

During the transition from the UNIVAC 494 to IBM hardware, the TIR Wheel SCA Table was converted to a data base structure called the Activity Data File (ADF). The ADF, in fact, could include more than 45 activities, but the application programs remained “hard-coded” to the 45 activities. Consequently, the application programs could still only receive TIRs from the 45 activities. As such, the visibility of wholesale assets and requirements continued to be limited.

Discussion. The TIR Wheel Expansion project required the Fleet Material Support Office (FMSO), the CDA for UICP, to change the ADF so more activities (up to 7000) could be added, as well as adding additional data elements and, most importantly, making the necessary changes to the application programs for the acceptance of more activities’ TIRs and data elements. One critical new data element in the ADF is the Asset Inclusion Indicator (AII). The AII informs the UICP application programs which wholesale assets and requirements should be included in wholesale requirements determination. Consequently, it will be possible to add retail activities to the TIR Wheel to achieve asset and requirements visibility of retail inventory levels without impacting the wholesale requirements determination computations. FMSO completed TIR Wheel Expansion development in July 1996.

Implementation. The TIR Wheel Expansion program releases were implemented by NAVICP-M and NAVICP-P in August 1996. The enlarged ADF and enhanced application programs provide the capability to expand wholesale asset and requirement visibility. The NAVICP has no immediate plans to add large numbers of activities to the TIR Wheel at once. Rather, activities will be added on a phased basis, as different projects are implemented, such as, Material Financial Control System (MFCS) Retail, NAS Requirements, ISV-R, and Relational

Supply. These initiatives are discussed elsewhere in this Section. Clearly, one hundred percent visibility of wholesale assets and requirements by NAVICP should be achieved by year 2000, as well as visibility of afloat assets, retail inventory assets and requirements.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Wholesale and Retail requirements is provided below:

TIR Wheel Expansion

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	Yes
ISW-3	SICA ICP Requires Visibility of PICA Assets	Yes
ISW-4	ICP Requires Visibility of DRMS Assets	Yes
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	No
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No
ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

TIR Wheel Expansion contributes to four of the nine JTAV In-Storage Wholesale and one of the four In-Storage Retail requirements. In addition, TIR Wheel Expansion contributes to one of the four In-Storage In-Use requirements, as shown below.

TIR Wheel Expansion

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISI-1	ICP Requires Visibility of In-Use Assets	Yes
ISI-2	Headquarters Requires Visibility of In-Use Assets	No
ISI-3	CINCs and JTF Commanders Require Visibility of In-Use Assets	No

Finally, TIR Wheel Expansion supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Complete Regional Supply Through Partnerships
- Take Regional Supply National
- Link Process-Driven System to Best Provider
- Reengineer Inventory, Retention & Positioning Strategies

Summary. Once fully implemented, TIR Wheel Expansion will provide the NAVICP visibility of assets and requirements heretofore unavailable on a real-time basis. With this expanded visibility, the NAVICP will have the capability to apply newly visible assets to pending procurements and/or repair actions, thereby reducing inventory investments. NAVICP will also have the capability to satisfy customer demands through redistributions of these newly visible assets, rather than establishing backorders while awaiting delivery of procurements or repairs, thereby reducing logistics response time.

UADPS (Uniform Automated Data Processing System)

Background. The stand-alone version of the Uniform Automated Data Processing System for Stock Points (UADPS-SP) has been in existence since 1963. During 1993 and 1994, the UADPS-SP software was modified to better support lateral asset visibility and regional inventory management. This modification to UADPS-SP, known as U2 (UADPS-2), was to provide regionalized supply support, retain the traditional gateway to the logistics pipeline, exploit current information system technology, and eliminate duplication in our shore based infrastructure and inventories.

Discussion. UADPS-2 supports material and financial management and other logistics functions, locally and regionally, by mechanizing the processing of a huge volume of supply transactions and record keeping that could not otherwise be accomplished without substantial and unaffordable labor investments. As such, UADPS-2 is an indispensable component of the Navy's Supply System without which logistic support to the fleet would be halted. UADPS-2 must remain a viable operational system until replaced by either a DoD or Navy standard system. In the interim, development and modernization costs are incurred only to the extent that they are required to maintain functional and technical currency.

Implementation. UADPS-2 is the standard legacy automated information system supporting all aspects of supply management at Navy activities world-wide, including Naval and Marine Corps Air Stations, Naval Training Activities, Naval Shipyards, and Fleet Industrial Supply Centers (FISCs). It supports a wide variety of consumer level inventory management, inventory accounting, and physical distribution functions. UADPS-2 currently operates at Defense Information Processing Centers (DIPCs) which are being consolidated into Defense Megacenters (DMCs). UADPS-2 interfaces with the standard Navy wholesale inventory management system, the Uniform Automatic Data Processing System for Inventory Control Points (UADPS-ICP) and other standard Navy maintenance and procurement systems. The system is centrally maintained by the Navy Fleet Material Support Office (FMSO) located in Mechanicsburg, Pa.

Contribution to JTAV. UADPS-2 is categorized as a database that supports in-storage/in-process TAV areas. There is no "TAV" budget or initiative directly within the UADPS-2 program although there are many TAV initiatives, existing and underway, that depend on UADPS-2 to provide/feed asset information. UADPS-2 generally supports TAV objectives by improving asset visibility through retirement of standalone DOSS, Level-2 and UADPS-2

consumer level ADP systems and the merging those material management functions into a FISC region utilizing one copy of UADPS-2

Summary. U2 is implemented at all FISC and standalone UADPS activities. In FY 97, fifteen standalone activities (DOSS & UADPS-2) were consolidated with a FISC. In FY 98, five Level-2 activities and all remaining DOSS activities (13) are scheduled for consolidation. In FY 99, six remaining Level-2 OCONUS activities will be merged with a FISC. As of the end of FY 97, there will be only six standalone U2 activities that are not a FISC (TRF Bangor, TRF Kings Bay, NSSF New London, NAS Patuxent River, NAS Corpus Christi, NAS Alameda). Various plans for these remaining standalone UADPS-2 activities are under discussion and range from partnering with a FISC region to standing up a new separate FISC region.

UICP (Uniform Inventory Control Procedures)

Background. The Uniform Inventory Control Point (UICP) data processing system is the Naval Inventory Control Point (NAVICP) Automated Information System (AIS) used in performing inventory management of Navy's secondary items.

Discussion. UICP consists of numerous software application/operation programs which collectively are used to manage approximately 400,000 line items of inventory valued at approximately \$36 billion (at standard price). UICP contains all inventory records, records item transactions as well as financial transactions, maintains technical specifications for item procurement, and maintains a weapon system program and configuration data base in the Weapon System File (WSF). All wholesale stocks of material stored at activities such as the Fleet Industrial and Supply Centers (FISCs), Naval Air Stations (NASs) and Naval Shipyards (NSYs) are subject to daily transaction reporting to the NAVICP. Prior to August 1996, forty-five activities could provide daily TIRs to NAVICP-P and NAVICP-M. (See initiative on TIR Wheel Expansion for current capabilities). From these daily TIRs, UICP updates the Master Item File (MIF) of each respective NIIN to reflect the current on-hand balance, due-in/due-out balances, planned program requirements, etc. UICP has extensive edit and validation routines which automatically trigger such actions as procurements, allocation/reallocation of assets, referrals of requisitions, and supply demand reviews. UICP provides on-line access to on-hand balances, due-in/due-out balances by purpose code and condition code plus backorder information, in-transit data and planned program requirement data together with technical and application data. NAVICP receives into UICP each quarter Cyclic Asset Reports from all activities that do not perform TIR reporting, but do hold NAVICP-managed inventories. These Cyclic Asset Reports provide NAVICP with asset and requirement data at these "non-reporters".

Implementation. While UICP was initially implemented years ago, a significant upgrading commenced in the late Eighties through an effort referred to as Resystemization, or RESYS. RESYS was envisioned to be a total redevelopment of the entire UICP system which included 84 separate functional areas and 15 computational models. This translated into reprogramming 99 Applications/Operations (A/Os). However, this effort was curtailed by Navy's execution of budget reductions associated with Defense Management Review Decision (DMRD) 925 which directed development of standard, Corporate Information Management (CIM) systems for use by all Services and the Defense Logistics Agency (DLA). In early 1990, RESYS was restructured in consonance with reduced development resources which resulted in 41 vice 99 A/Os being

planned for reprogramming. In late 1990, alternatives to the restructured RESYS were solicited by Navy management. This review and decision-making process, in anticipation of further resource reductions, resulted in ALT RESYS which reduced the number of A/Os to be reprogrammed from 41 to 29. These 29 A/Os were in the areas of procurement, financial management, and repairables management.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Wholesale requirements is provided below:

<u>UICP</u>		
<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISW-1	ICP Requires Visibility of All Wholesale Assets	Yes
ISW-2	PICA ICP Requires Visibility of SICA Assets	No
ISW-3	SICA ICP Requires Visibility of PICA Assets	No
ISW-4	ICP Requires Visibility of DRMS Assets	No
ISW-5	Retail Managers Requires Visibility of Wholesale Assets	No
ISW-6	End-Users/IMAs Require Visibility of Wholesale Assets	No
ISW-7	Depot Maintainers Require Visibility of RFI Wholesale Assets	No
ISW-8	Depot Maintainers Require Visibility of NRFI Wholesale Assets	No
ISW-9	Logisticians Require Visibility of Wholesale Assets	No

As shown above, UICP contributes directly to only one of the nine JTAV In-Storage Wholesale requirements. However, the implementation of TIR Wheel Expansion will increase the coverage of other JTAV requirements, as shown in that initiative. UICP also contributes to the JTAV In-Process requirements; this contribution is shown on the next page.

<u>UICP</u>		
<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
IPP-1	ICP Requires Visibility of Procurement Assets	Yes
IPP-2	Headquarters Require Visibility of Procurement Assets	Yes
IPP-3	CINCs Require Visibility of Wholesale Due-Ins	Yes
IPP-4	Weapons Managers Require Visibility of Wholesale Due-Ins	Yes
IPP-5	Retail Managers Require Visibility of Wholesale Due-Ins	Yes

IPP-6	IMA/Depot Maintainers Require Visibility of Wholesale Due-Ins	Yes
IPP-7	ICP Requires Visibility of Material Stored at Commercial Firms	Yes
IPR-1	OSD Requires Visibility of In-Repair Assets	Yes
IPR-2	Joint Staff Requires Visibility of In-Repair Assets	Yes
IPR-3	Headquarters Requires Aggregate Visibility of In-Repair Assets	Yes
IPR-4	ICP Requires Visibility of In-Repair Assets at Depot and IMA	Yes
IPR-5	Weapons Managers Require Visibility of In-Repair Assets	Yes
IPR-6	Major Commands Require Visibility of In-Repair Assets	Yes
IPR-7	CINCs Require Visibility of In-Repair Assets	Yes
IPR-8	JTF Commanders Require Visibility of In-Repair Assets	Yes
IPR-9	Maintenance Managers Require Visibility of In-Repair Assets	Yes
IPR-10	Retail Managers Require Visibility of Due-Outs from Repair	Yes

As shown above, UICP contributes to all seven of the JTAV In-Process Procurement requirements which assumes Headquarters, Weapons Managers, etc. have access to either PC34 Retrieval System, SNAPshot or SALTS which permits them to obtain In-Process data in the UICP files. Under this same assumption, UICP also contributes to all ten JTAV In-Process Repair requirements. It should be noted, however, that this contribution is really only applicable to In-Repair assets at the Depots, or Designated Overhaul Points (DOPs). Not-Ready-for-Issue (NRFI) assets that are in the Intermediate Maintenance Activity (IMA) are typically retained as on hand on the inventory records of the supply activity (and therefore at the NAVICP) while the NRFI repairable is being repaired by the IMA. If the NRFI repairable is returned to Ready-for-Issue (RFI) condition, it is merely returned to the storeroom. If the NRFI repairable cannot be returned to RFI condition by the IMA, the supply activity's on-hand balance is reduced (and reported to the NAVICP), and the NRFI repairable is shipped off to the Navy's HUB in either Norfolk or San Diego for ultimate transfer into a DOP for induction at the direction of the NAVICP.

Based upon the above, UICP supports the following Strategic Objectives:

DoD Strategic Objectives

- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. UICP is the Navy's NAVICP AIS used in the inventory management of approximately 400,000 secondary items valued at \$36 billion. UICP provides inventory managers at NAVICP with the visibility of all requirements and assets in the wholesale system. This visibility permits inventory managers to make issues to Navy customers, identify procurement and repair actions, initiate disposal actions, provision new or modified weapon systems, and redistribute assets within the wholesale system to meet the highest priorities of Navy customer requirements.

VMSIR (Virtual Master Stock Item Record)

Background. Navy-owned Defense Logistics Agency (DLA) and General Administration Agency (GSA) retail inventories are primarily stocked at the Navy's Fleet Industrial and Supply Centers (FISCs). As the 1990s began, each FISC was unaware of retail inventory information at the other FISCs. Consequently, when a requisition for retail material submitted by a Fleet unit was not available at the Point-of-Entry (POE) FISC, the requisition was passed to DLA. This "process" precluded the POE FISC from drawing down excess retail inventories that might be available at another FISC. Because of the inefficiencies of this "process", as well as DMRD 901 which directed the Services to achieve increased asset visibility and to reduce inventories and associated costs, the Virtual Master Stock Item Record (VMSIR) project was initiated.

Discussion. Using the existing capability of the TANDEM network, it was believed possible to create network-based applications which would permit real-time, on-line information to be passed among the FISCs. A three-phased approach was utilized in order to keep implementation costs to a minimum and to ensure the least disruption to FISCs' operations. Phase I provided visibility to TANDEM users of DLA/GSA retail assets (on hand quantities less reservations) carried on the FISCs' MSIR, as well as Navy-managed wholesale inventories stocked at the FISCs. VMSIR is a real-time system that runs on the Navy Logistics Network (NLN). Phase II of VMSIR automatically redirects requisitions to another VMSIR activity based upon retail asset availability rather than sending the requisition to DLA or GSA, when the requisitioned retail material is unavailable at the POE FISC. For Navy-managed wholesale assets, requisitioners must contact the NAVICP off-line to obtain release of these assets. Phase III automatically directs a FISC's retail stock replenishment requisition to another VMSIR activity for filling the replenishment requirement rather than sending the replenishment requisition to DLA or GSA, thereby avoiding the obligation of austere Budget Project 28 NWCF resources.

Implementation. VMSIR was first implemented at the FISCs in 1991. Since then, VMSIR was exported to activities other than FISCs, e.g., Naval Air Stations, Marine Corps Air Stations, which had access to the NLN. The Navy estimates that over \$190M in cost avoidance has been achieved through redistribution of Navy-owned DLA/GSA excess retail inventories since 1991.

It should also be noted that VMSIR is available to all DoD activities through the DLA/DAAS Logistics Information Network (LINK) program and the SALTs program. VMSIR also provides

visibility of wholesale and retail inventories managed by the FISCs, as well as assets in the Residual Asset Management (RAM) system.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

Virtual MSIR

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes
ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	Yes

In addition to contributing to all four of the JTAV In Storage Retail requirements, Virtual MSIR supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Complete Regional Supply Through Partnerships
- Take Regional Supply National
- Link Process-Driven System to Best Provider
- Reengineer Inventory, Retention & Positioning Strategies

Summary. The Navy's Virtual MSIR initiative has been highly successful. It has reduced inventory investment in Navy-owned DLA/GSA material through redistribution of excess inventories. Virtual MSIR has also contributed to reducing logistics response time by the POE

activity referring customer requirements to another activity which has excess material, rather than passing the customer's requisition to DLA/GSA.

VMSIR-SAMMS (VMSIR-Standard Automated Materiel Management System)

Background. Once VMSIR was implemented and tangible cost avoidance benefits were identified, a series of TAV initiatives were begun using the VMSIR “technology”. One of these initiatives, or VMSIR enhancements, was VMISR-SAMMS.

Discussion. The DoD and Joint Logistics Supply Center (JLSC) endorsed, as part of the Joint DoD Task Force on Total Asset Visibility (TAV), the concept of interservice lateral redistribution of assets to reduce anticipated procurements, as well as reducing logistics response times. Since the Defense Industrial Supply Center (DISC) successfully used VMSIR during Desert Storm to fill backorders with Navy-owned retail inventories, the establishment of a lateral redistribution capability between DLA and Navy was a logical next step. DLA’s Supply/Support Centers manage their wholesale system inventories through the Standard Automated Materiel Management System (SAMMS). Under the VMSIR-SAMMS initiative, DLA is permitted to fill requisitions and existing DLA backorders, as well as offsetting procurements, on a reimbursable basis from Navy-owned excess retail inventories. DLA’s Supply/Support Centers query VMSIR using the National Item Identification Number (NIIN) to identify excess retail inventories. If excesses are identified, the DLA Supply/Support Center sends a referral order (DOC ID ‘A4_’) to that particular Navy activity for executing the issue.

Implementation. VMSIR-SAMMS was prototyped at the Defense Construction Supply Center (DCSC) and FISCs Pensacola, Charleston and Oakland in September 1994. The Defense Personnel Support Center (DPSC) and DISC were added in October 1994 and expanded to include FISC Jacksonville in November 1994. By February 1995, all Navy VMSIR activities and DLA’s Supply/Support Centers were fully operational.

Contribution to JTAV Requirements. An assessment of this initiative’s contribution to the JTAV In-Storage Retail requirements is provided below:

VMSIR-SAMMS

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	No

ISR-3	Headquarters Requires Visibility of Retail Assets	No
ISR-4	Weapon System Managers Require Visibility of Retail Assets	No

While the above assessment reveals a contribution to only one of the JTAV In Storage Retail requirements, it has, more importantly, accommodated the objective of inter-service lateral redistribution of inventories. In addition, VMSIR-SAMMS supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Reengineer Inventory, Retention & Positioning Strategies

Summary. VMSIR-SAMMS embodies the essence of TAV; i.e., the ability to execute inter-service lateral redistributions through increased asset visibility. Execution of inter-service redistributions can either reduce inventory investments by the application of these assets to pending procurements, or reduce logistics response time by filling customer demands, rather than backordering the requirement.

VMSIR @ TRF (Trident Rework Facility)

Background. The Trident Refit Facility Visibility (VMSIR at TRF) initiative applies to TRFs Bangor and Kings Bay which provide logistics support to the Navy's Trident submarines. The objective of this initiative is to increase asset visibility of the Navy-owned DLA retail assets stocked at these two activities for redistribution purposes utilizing VMSIR technology.

Discussion. Under current procedures, submarine requisitions are submitted to the TRFs and processed within UADPS-2. If the Navy-owned DLA retail material is available, an issue is made. If material is unavailable, the requisition is passed to the local referral program which forwards the requisition to the appropriate DLA ICP.

Numerous meetings have been held with the interested parties with the objective of identifying methodologies that might be employed to provide asset visibility of the two TRFs to each other, as well as providing visibility of the TRFs' assets to non -TRF activities and non-TRF asset visibility to the TRFs. VMSIR was the technological methodology selected to achieve these objectives. It was also decided that TRF Bangor and TRF Kings Bay would have visibility and accessibility to all of each others assets including Insurance Strategic Systems Programs (SSP) Protection Levels. Further, if assets are not available at either TRF, customer requisitions will look at other VMSIR activities loaded in the TRF tables for any excess quantities that can be used to fill the customer requisition before referring the requisition into the appropriate DLA ICP. Conversely, non-TRF VMSIR activities will have visibility and accessibility of the TRFs excess Navy-owned DLA material just as any other activity employing VMSIR.

Implementation. VMSIR at TRF is currently scheduled for implementation in FY 1998.

Contribution to JTAV Requirements. An assessment of this initiative's contribution to the JTAV In-Storage Retail requirements is provided below:

VMSIR at TRF

<u>Item</u>	<u>Requirement</u>	
<u>Contributes</u>		
ISR-1	ICP Requires Visibility of Retail Assets	Yes
ISR-2	IMA & Depot Maintenance Require Visibility of Retail Assets	Yes

ISR-3	Headquarters Requires Visibility of Retail Assets	Yes
ISR-4	Weapon System Managers Require Visibility of Retail Assets	Yes

As shown above, VMSIR at TRF contributes to all four JTAV In-Storage Retail requirements. This assessment is based upon the fact that any activity, including ships, can access VMSIR asset information through SALTS and the Logistics Information Network (LINK).

Based upon the above, VMSIR at TRF supports the following Strategic Objectives:

DoD Strategic Objectives

- Reduce Logistics Response Time
- Implement Total Asset Visibility
- Improve Communication of Logistics Information
- Implement Most Successful Business Practices

Navy Strategic Objectives

- Reengineer to Reduce Costs and Cycle Times
- Exploit Information Technology for Seamless Logistics

NAVSUP Strategic Objectives

- Link Process-Driven System to Best Provider
- Implement Best Value Products and Services

Summary. VMSIR at TRF will provide Navy the capability to redistribute Navy-owned DLA retail assets between the two TRFs, as well as redistribute excesses from non-TRF VMSIR activities to the TRFs and from the TRFs to non-TRF VMSIR activities. This capability will reduce logistics response time and inventory investment.

TAV Comparative Analysis

- A. **Summary of Comparative Analysis.** The Total Asset Visibility (TAV) requirements included in the *Joint TAV Implementation Plan* were addressed in Section III; there were 60 specific requirements. Appendix A identifies those TAV initiatives either already

implemented by the Navy or in a developmental phase. Appendix B provides a comparative analysis of those Navy initiatives against the requirements of the Joint TAV Implementation Plan. A summary of this comparative analysis is provided below:

<u>TAV Area</u>	<u>No. of JTAV Requirements</u>	<u>No. Satisfied By Navy Initiatives</u>
In-Storage (Wholesale)	9	9
In-Storage (Retail)	4	4
In-Storage (In-Use)	4	4
In-Process (Procurement)	7	7
In-Process (Repair)	10	10
In-Transit	8	8
In-Theater	12	12
Requisition Tracking	<u>6</u>	<u>6</u>
Total	60	60

B. In-Storage (Wholesale) Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

ISW-1: ICP Requires Visibility of All Wholesale Assets

- TIR Wheel Expansion
- UICP
- Expanded ATAC
- PICA/SICA
- CAIMS

ISW-2: PICA ICP Requires Visibility of SICA Assets

- PICA/SICA

ISW-3: SICA ICP Requires Visibility of PICA Assets

- PICA/SICA

ISW-4: ICP Requires Visibility of DRMS Assets

- IRISVIS
- SALTS

ISW-5: Retail Managers Require Visibility of Wholesale Assets

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS

ISW-6: End Users/IMAs Require Visibility of Wholesale Assets

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS

ISW-7: Depot Maintainers Require Visibility of RFI Wholesale Assets

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS
- CAIMS

ISW-8: Depot Maintainers Require Visibility of NRFI Wholesale Assets

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS
- CAIMS

ISW-9: Logisticians Require Visibility of Wholesale Assets

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS

C. In-Storage (Retail) Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

ISR-1: ICP Requires Visibility of Retail Assets

- TIR Wheel Expansion
- VMSIR
- VMSIR-SAMMS
- RAM

- SALTS
- MFCS-Retail
- Relational Supply
- FIMARS/FITS
- TRFVIS
- RHMMS/CPEN Interface
- CAIMS

IRS-2: IMA & Depot Maintenance Require Visibility of Retail Assets

- VMSIR
- SALTS
- ROMISVIS
- PVIS
- TRFVIS
- RHMMS/CPEN Interface

IRS-3: Headquarters Requires Visibility of Retail Assets

- VMSIR
- SALTS
- FIMARS/FITS
- TRFVIS
- RHMMS/CPEN Interface
- CAIMS

IRS-4: Weapon System Managers Require Visibility of Retail Assets

- VMSIR
- SALTS
- TRFVIS
- RHMMS/CPEN Interface
- CAIMS

D. In-Storage (In-Use) Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

ISI-1: ICP Requires Visibility of In-Use Assets

- TIR Wheel Expansion

- MFCS-Retail
- Relational Supply
- FIMARS/FITS

ISI-2: Headquarters/Major Commands Require Visibility of In-Use Assets

- FIMARS/FITS

ISI-3: CINCs and JTF Commanders Require Visibility of In-Use Assets

- FIMARS/FITS

ISI-4: Weapon System Managers Require Visibility of In-Use Assets

- FIMARS/FITS

E. In-Process (Procurement) Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

IPP-1: ICP Requires Visibility of Procurement Assets

- UICP
- CAIMS

IPP-2: Headquarters Require Visibility of Procurement Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS
- CAIMS

IPP-3: CINCs Require Visibility of Due-In Assets

- UICP
- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS

IPP-4: Weapons Managers Require Visibility of Due-In Assets

- UICP
- NALISS

- PC34 Retrieval System/SNAPshot
- SALTS
- CAIMS

IPP-5: Retail Managers Require Visibility of Wholesale Due-Ins

- UICP
- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS

IPP-6: IMA/Depot Maintainers Require Visibility of Wholesale Due-Ins

- UICP
- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS

IPP-7: ICP Requires Visibility of Material Stored at Commercial Firms

- UICP
- CAV
- CAIMS

F. In-Process (Repair) Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

IPR-1: OSD Requires Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS

IPR-2: Joint Staff Requires Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS

IPR-3: Headquarters Requires Aggregate Visibility of In-Repair Assets

- UICP

- PC34 Retrieval System/SNAPshot
- SALTS
- CAIMS

IPR-4: ICP Requires Visibility of In-Repair Assets at Depot and IMA

- UICP
- CAV
- CAIMS

IPR-5: Weapons Managers Require Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS
- CAIMS

IPR-6: Major Commands Require Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS

IPR-7: CINCs Require Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS

IPR-8: JTF Commanders Require Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS

IPR-9: Maintenance Managers Require Visibility of In-Repair Assets

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS
- NALCOMIS

IPR-10: Retail Managers Require Visibility of Due-Outs from Repair

- UICP
- PC34 Retrieval System/SNAPshot
- SALTS
- NALCOMIS

G. In-Transit Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

ITV-1: DoD Requires Visibility of Personnel to/from OCONUS

- GTN

ITV2: ICP/Transporters/Receivers Require Detailed 'Content' Data

- FACTS
- Expanded ATAC
- RDO/RFI
- GTN

ITV-3: Transporters Require Shipment Location Visibility

- FACTS
- GTN

ITV-4: Supply/Maintainers/Theater Commanders Require ITV

- GTN

ITV-5: Theater Commanders/Logistics Planners/Shippers Require ITV

- GTN

ITV-6: DoD Managers Require ITV from Origin to Destination

- GTN

ITV-7: DoD requires ITV Capability to Transition from Peace to War

- GTN

ITV-8: Logistics/Transporters/Theater Require ITV Linkages

- GTN

H. In-Theater Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

ITH-1: Support Deliberate and Crisis Planning

- FIMARS/FITS
- GTN

ITH-2: Manage Deployment, Reception, Onward Movement, Integration, and Employment of Inbound Forces/Supplies

- FIMARS/FITS
- GTN

ITH-3: Improve Management of In-Theater Assets

- FIMARS/FITS
- GTN

ITH-4: Monitor Redeployment of Forces & Retrograde

- GTN

ITH-5: Identify Status, Quantity, and Location of Prepositioned Assets

- FIMARS/FITS

ITH-6: Monitor Status/Location of Unit Equipment & Cargo, Major End Items, and Sustainment Material

- FIMARS/FITS
- GTN

ITH-7: Identify and Resolve Logistics Bottlenecks

- GTN

ITH-8: Allocate Critical Assets

- FIMARS/FITS
- GTN

ITH-9: Monitor Incoming, In-Theater and Departing Personnel

- GTN

ITH-10: Manage Theater Host Nation Support Requirements

- GTN

ITH-11: Support Operation in Other Than War

- FIMARS/FITS
- GTN

ITH-12: Support Theater Doctrine, Budget, and Procurement Decisions

- FIMARS/FITS
- GTN

I. Requisition Tracking Requirements. The following Joint TAV requirements and supporting Navy TAV initiatives are provided thereunder:

TR-1: End Users Require ITV of Quantities/Expected Delivery Dates

- FIMARS/FITS
- GTN
- ONESTOP

TR-2: Retail Managers Require Visibility of Outstanding Requisitions

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS
- FIMARS/FITS
- GTN
- ONESTOP

TR-3: Headquarters Require ITV of Quantities/Expected Delivery Dates

- FIMARS/FITS
- GTN
- ONESTOP

TR-4: CINCs/JTV Staffs Require Visibility of Outstanding Requisitions

- NALISS
- PC34 Retrieval System/SNAPshot

- SALTS
- FIMARS/FITS
- GTN
- ONESTOP

TR-5: IMA/Depot Maintainers Require Visibility of On-Order for Repair

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS
- GTN
- ONESTOP

TR-6: Logistics Managers Require Capability to Track Requisitions

- NALISS
- PC34 Retrieval System/SNAPshot
- SALTS
- FIMARS/FITS
- GTN
- ONESTOP

Acronyms

Acronym

Definition

A/O	Application/Operation
AAV	Afloat Asset Visibility
ACBAL	Accountable Balance
ADF	Activity Data File
ADP	Automatic Data Processing
AECL	Aircraft Equipment Configuration List
AII	Asset Inclusion Indicator
AIMD	Aviation Intermediate Maintenance Department
AIS	Automated Information System

AIT	Automated Information Technology
AMC	Air Mobility Command
AMSS	Ammunition Management Standard System
APA	Appropriation Purchase Account
APADE	Automation of Procurement and Accounting Data Entry
ARR	Allowance Requirements Register
ATAC	Advanced Traceability and Control
ATAV	Army Total Asset Visibility
ATS	Automatic Test System
AVCAL	Aviation Consolidated Allowance List
AVR	Asset Visibility Report
AWP	Awaiting Parts
BAMS	Battle Group Asset Management System
BCA	Business Case Analysis
BCM	Beyond the Capability of Maintenance
BP	Budget Project
CAIMS	Conventional Ammunition Integrated Management System
CALS	Continuous Acquisition and Life Cycle Support
CAMMS	Contractor Asset Material Management System
CAPS II	Consolidated Aerial Port System II
<u>Acronym</u>	<u>Definition</u>
CAV	Contractor Asset Visibility
CB	Construction Battalion
CDA	Central Design Agency
CFM	Contractor Furnished Material
CFM	CONUS Freight Management
CIC	Customer Information System
CIM	Corporate Information System
CINC	Commander in Chief
CLF	Combat Logistics Force
CMOS	Cargo Movement Operation System
COE	Common Operating Environment
CONUS	Continental United States
COSAL	Coordinated Shipboard Allowance List
COTS	Commercial Off The Shelf
CPEN	Centralized Point of Entry Network

CRAMSI	Consolidated Residual Asset Management Screening Information
CRIF	Cargo Routing Identifier File
CSR	Customer Service Representative
CTF	Commander Task Force
CVN	Aircraft Carrier, Nuclear
DAAS	Defense Automated Addressing System
DAASC	Defense Automated Addressing System Center
DCNO (L)	Deputy Chief of Naval Operations for Logistics
DCSC	Defense Construction Supply Center
DDG	Destroyer, Guided Missile
DIFM	Due In From Maintenance
DII	Defense Information Infrastructure
DIMM	Defense Integrated Material Management
DISC	Defense Industrial Supply Center
DITV	Defense In-Transit Visibility
DLA	Defense Logistics Agency
DLR	Depot Level Repairable
DLSC	Defense Logistics Support Center
DMDC	Defense Manpower Data Center
<u>Acronym</u>	<u>Definition</u>
DMRD	Defense Management Review Decision
DOC ID	Document Identifier
DoD	Department of Defense
DOP	Designated Overhaul Point
DPSC	Defense Personnel Support Center
DRMO	Defense Reutilization Marketing Office
DRMS	Defense Reutilization Marketing Service
DSF	Document Status File
DSP	Designated Support Point
DSS	Distribution Standard System
DTS	Defense Transportation System
DTTS	Defense Transportation Tracking System
DUE	Due-In
EC	Electronic Commerce
ECD	Estimated Completion Date

EDI	Electronic Data Interchange
ELSF	Expeditionary Logistics Support Facility
FACTS	Fleet Automated Control Tracking System
FACTS-Fleet	Fleet Automated Control Tracking System-Fleet
FACTS-DoD	Financial and Air Clearance Transportation System-DoD
FAQ	Fixed Allowance Quantity
FIMARS	Fleet Inventory Management Analysis and Reporting System
FISC	Fleet Industrial Supply Center
FITS	Force Inventory Transmission System
FMSO	Fleet Material Support Office
FOSAM	Fleet Optical Scanning and Marking System
FYDP	Five Year Defense Program
GCSS	Global Combat Support System
GDM	Global Data Management
GDSS	Global Decision Support System
GFE	Government Furnished Equipment
GFM	Government Furnished Material
GL	Generation Language
GOM	Government Owned Material

Acronym

Definition

GSA	General Services Administration
GTN	Global Transportation Network
GUI	Graphical User Interface
HSC	Hardware Systems Command
IBS	Integrated Booking System
ICP	Inventory Control Point
ICP AIS	Inventory Control Point Automated Information System
IDW	Internet Development Workshop
IMA	Intermediate Maintenance Activity
IMEC	Item Mission Essentiality Code
IMM	Integrated Material Manager
IPP	In-Process Procurement
IPR	In-Process Repair
IRIS	Interrogation Requirements Information System
IRISVIS	Interrogation Requirements Information System Visibility
IRRD	Issue Release/Receipt Document

ISEA	In-Service Engineering Activity
ISI	In-Storage In-Use
ISP	Internet Service Provider
ISR	In-Storage Retail
ISW	In-Storage Wholesale
ITV	In-Transit Visibility
JFAST	Joint Flow Analysis System for Transportation
JLSC	Joint Logistics Systems Center
JORDWAR	Joint Ordnance Wargaming
JTAV	Joint Total Asset Visibility
JTF	Joint Task Force
JWID	Joint Warrior Interoperability Demonstration
LAN	Local Area Network
LINK	Logistics Information Network
LIPS	Logistics Information Processing System
LRT	Logistics Response Time
MAF	Maintenance Action Form
MALS	Marine Aviation Logistics Squadron

Acronym

Definition

MATCONOFF	Material Control Officer
MEI	Major End Item
METS	Mechanized Export Traffic System
MFCS	Material Financial Control System
MICROSNAP	MICRO Shipboard Nontactical ADP Program
MIF	Master Information File
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MISTRAP	Military Standard Transaction Reporting and Accounting Procedures
MMS	Material Management System
MRIL	Mechanized Repairable Item List
MSC	Military Sealift Command
MSIR	Master Stock Item Record
MTMC	Military Traffic Management Command
NADEP	Naval Aviation Depot
NALCOMIS	Naval Aviation Logistics Command Management Information System

NALISS	Naval Aviation Logistics Information Support System
NAS	Naval Air Station
NAVADS	Naval Automated Transportation and Document System
NAVICP	Naval Inventory Control Point
NAVICP-M	Naval Inventory Control Point-Mechanicsburg
NAVICP-P	Naval Inventory Control Point-Philadelphia
NAVMASSO	Navy Management Systems Support Office
NAVSEASYS COM	Naval Sea Systems Command
NAVSUPSYSCOM	Naval Supply Systems Command
NAVTRANS	Naval Transportation Support Center
NAVXPRESS	Naval Express
NIIN	National Item Identification Number
NIMSC	Nonconsumable Item Management Support Code
NIP	Nonconsumable Item Program
NIPERNET	Nonclassified Internet Protocol Router Network
NISTARS	Naval Integrated Storage, Tracking and Retrieval System
NLN	Navy Logistics Network
NOC	Naval Ordnance Command

Acronym

Definition

NRFI	Not Ready For Issue
NSN	National Stock Number
NSY	Naval Shipyard
NTAV	Navy Total Asset Visibility
NTCSS	Navy Tactical Command Support System
NWCF	Navy Working Capital Fund
OCONUS	Outside of the Continental United States
OSD	Office of the Secretary of Defense
PAT	Process Action Team
PC	Personal Computer
PICA	Primary Inventory Control Activity
PLTS	Parts Life Tracking System
POD	Port of Debarkation
POD	Proof of Delivery
POE	Point of Entry
POE	Port of Embarkation
POL	Packaged and Bulk Petroleum, Oil and Lubricants

POM	Preparation for Overseas Movement
POM	Program Objectives Memorandum
POS	Proof of Shipment
PPF	Planned Program File
PPR	Planned Program Requirement
PRAMS	Passenger Reservation and Manifesting System
PVIS	Part Number Visibility
QDR	Quality Deficiency Report
R-Supply	Relational Supply
RAM	Residual Asset Management
RDBMS	Relational Data Base Management System
RDF	Receipt Due File
RDO	Redistribution Order
RESYS	Resystemization
RFI	Ready For Issue
RFP	Request For Proposal
RHMMS	Regional Hazardous Material Management System
ROAMS	Replacement Operations Automation System

Acronym

Definition

ROD	Report of Discrepancy
ROMIS	Real Time Outfitting Management Information System
RS	Relational Supply
SAC	Special Accounting Class
SALTS	Streamlined Automated Logistics Transmission System
SAMMS	Standard Automated Materiel Management System
SCA	Systems Constant Area
SEABEES	Construction Battalions
SFM	Supply and Financial Management
SGL	Standard General Ledger
SHORCAL	Shore Consolidated Allowance List
SICA	Secondary Inventory Control Activity
SIPRNET	Secret Internet Protocol Router Network
SNAP	Shipboard Nontactical ADP Program
SOM	Sponsor Owned Material
SPCC	Ships Parts Control Center (NAVICP-M)
SSP	Strategic Systems Program

SUADPS	Shipboard Uniform Automated Data Processing System
SUADPS-RT	Shipboard Uniform Automated Data Processing System-Real Time
SUP IOU	Supply Officer's IOU
SUPSHIP	Supervisor Shipbuilding
SURFLANT	Surface Forces, Atlantic
T-AFS	Combat Stores Ship (Military Sealift Command)
TAV	Total Asset Visibility
TBD	To Be Determined
TC ACCIS	Transportation Coordinator's Automated Command and Control System
TC AIMS II	Transportation Coordinator's Automated Information for Movement System II
TCN	Transportation Control Number
TIR	Transaction Item Report
TOB	Technical Operating Budget
TRAC2ES	TRANSCOM Regulating and Command and Control Evacuation System

Acronym

Definition

TRAMS	Transportation Automated Management System
TRF	Technical Reference File
TRF	Trident Refit Facility
TRFVIS	Trident Refit Facility Visibility
TYCOMS	Type Commanders
UADPS	Uniform Automated Data Processing System
UADPS-2	Uniform Automated Data Processing System-2
UADPS-Level II	Uniform Automated Data Processing System-Level II
UIC	Unit Identification Code
UICP	Uniform Inventory Control Point
ULN	Unit Line-Item Number
USMC	United States Marine Corps
USMC DCS (I&L)	United States Marine Corps Deputy Chief of Staff for Installations and Logistics
USNS	United States Naval Ship
USTRANSCOM	United States Transportation Command
VIDS	Visual Information Display System

VMSIR	Virtual Master Stock Item Record
WPS	Worldwide Port System
WSF	Weapon Systems File